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ORIGINAL ESSAYS.

FACTS *and* OBSERVATIONS *on the* MATLALTZAHUALT, *or* SPOTTED FEVER *of the* MEXICANS, *as it prevailed before and during the spring and summer of* 1813. *Translated for the Medical Repository, from the Spanish account of Professor* A. J. MONTANNA, M. D. *Dean of the Faculty, and Rector of the Royal and Pontifical University of Mexico, &c. as communicated to Professor* SAMUEL L. MITCHILL, *by* Dr. F. PASCALIS.

1. THAT *this epidemic was not imported into the kingdom of New Spain*, is the first object of inquiry of the learned author. He proves it, firstly, from a great number of prisoners of war, which, during two years, were brought in from various distant countries and sea coasts. In their way, they had sojourned in unhealthy and damp places, where malignant intermitting fevers and other epidemics were prevailing. They had intercourse with Indians, mostly afflicted with leprosy. Yet not a greater number than 500 of those prisoners have been in the hospitals with the ordinary jail or hospital fever.

At a large town (Puebla) on the road from the sea, it had been observed, that no traveller, no bales of goods whatever, could have been a vehicle of the supposed contagion; although another disease has long raged in it, probably the yellow fever, and although large bodies of recruits from thence have been employed in the royal army.

An ordinary cause of malignant epidemics, that of putrid effluvia from dead bodies, did not seem to have contributed to the Mexican pestilence. When the fœtor was much perceived in the capital, of the numerous corpses of criminals hung at Quaximalpan, no fever, nor any disease similar to this, was observed, in the most exposed parts of it.

2. *The epidemic was not contagious.* This is, to the learned Professor, a very easy matter to prove, and we cannot but regret that his argument was generally overlooked, in many of our cities, during former pestilences. He relates of two parish districts in which the matlatlazahualt prevailed a year before, and another six months after; they were properly and timely assisted, and until the epidemic disappeared. How could it be rekindled in Mexico at six months after by contagion, without we could retrace it to a succession of similar cases? But no such evidence has ever been produced. From these well ascertained circumstances, our author concludes, that the disease must have been the result of general atmospheric causes, and an inevitable calamity. He illustrates this position by comparing three populous districts, in which it raged at the same time; two of which are hilly and well ventilated countries; the one enjoying a perpetual spring, and the other of a rather cold temperature, both richly productive and fruitful lands, inhabited by healthy, laborious, and frugal races of men. The third district is the great city of Mexico, which Montanna informs us to be in a low situation, badly and thickly built, deprived of ventilation, intersected by large bodies of water, canals and sewers, which slowly circulate, and are the receptacles of putrid animal and vegetable bodies, annoying an immense population which is confined in small houses, narrow streets, of which the police department are frankly ashamed, populace known to be indolent, lazy, vicious, and addicted to intemperance. Is not that malady which pervades so different theatres and such opposite extremes, exclusively connected with the uniform causes and constitutional influence of the ambient atmosphere?

Description of the Mexican Matlaltzahualt, or Mexican Spotted Fever.

1. At the invasion of the disease, a great sense of weariness, preceded light and repeated chills; these were soon followed by vomiting of bilious matter, more or less bitter and yellow, with sharp and shifting pains in the stomach. If the patient would confine himself or lay down, these vomitings might be suspended, but they were easily renewed with chills, whenever he would move or speak. In a day or two, the hot stage of the fever produced a parched dryness of the mouth, of the nostrils, and of the skin. An unquenchable thirst prompted the sick to drink whatever they could; and as often as they did so, they would vomit, although with an empty stomach. At this period, many would fly from their bed, (especially the Indians) and expose themselves to a free air, yet several of this description were cured. Should this stage be interrupted by a return of chills, they provoked puking matter of all colours, from the yellow, to the grey, red, green, and to the black; this evacuation was salutary, however, if followed by a paroxysm of fever, with a full and high pulse; the skin would become soft and moist, the crisis was fortunate, and the patient recovered. Delay or suspension of fever, was the harbinger of hemorrhage from some part of the body; the epigastric region would remain painful to the lightest touch, and the stomach continued to reject all remedies until an inverted intestinal action could procure copious alvine evacuations.

2. With the continuation of puking, or even of nausea only, and with a confined state of the bowels, the heat of the body became extreme and mordicant; great anxiety was experienced by the patient; his eyes were inflamed, his tongue dry and red, pulse hard; yet in no period was bleeding more dangerous, although the least motion of the bowels might alter this alarming state.

3. If with the cessation of vomitings the pulse appeared to sink, and dysuria to intervene, the thirst to increase, the ideas to become confused, and the skin to continue parched; blue and purplish spots, of irregular

forms, would break out all over the body, now in a state of great prostration and debility. All these dangerous symptoms would not last less than a week; then the face, the neck, the hands, and the abdomen swelled; death (which these symptoms prognosticated) was hastened by some fœtid discharges or hemorrhage. The corpse remained inflated and covered all over with black, purple, or lead coloured spots, and promptly became putrid.

4. In this epidemic, a dysenteric flux weakens the subject much less than the vomitings, on account of their being frequently convulsive; the first always retarded, and the last accelerated epistaxis. Head-ache was a symptom of great importance to judge by, and had very different characters; should it neither precede nor accompany the invasion of the disease, should it not be exasperated by pukings, or by cholera morbus, it was nothing more than an obtuse sensation, a sense of weight, sometimes in the frontal, or in the cervical regions; with it the pulse was high, hard, and full, and not rarely undulating; the tongue was thick, red, and covered with a thin white shining scurf. This was a sure harbinger of epistaxis, which would critically happen in some days of the first week; should this be delayed, mania more or less furious, or idiotism, would take place. Another sort of head-ache was observed at the invasion of the fever; it was more violent on the top of the head, or on the temples; it was attended with a pulse rather quick and small, than full or hard, with an unclean tongue, dark and red, thereby indicating the spotted fever, which the Indians have called *Matlaltzahualt.*

5. The various symptoms of this terrible epidemic were further noticed as follows: It was found to exist with numerous instances of *lumbric worms,* as we have witnessed in Philadelphia during the yellow fever of 1793. It induced Professor Montanna to administer (especially to Indians) an elixir, which we will hereafter describe.

Chills (*horripilatio*) were characteristic in this fever; they lasted until the stomach was settled, and were unexceptionably attended with puking.

Delirium. It was various according to habits, genius,

and constitution of patients. The best was the *quarrelsome*, the *capricious*, and the *whimsical;* the worst kind was either strongly marked with insensibility, or stupidity, and easily rendered outrageous, or full of fears and terror.

Jaundice. There were two kinds, one very critical and salutary, always accompanied with a good pulse: that which was attended with an uneven pulse, high and hard in the right hand, has been always a fatal symptom, as much as a tardy epistaxis. *A state of unexplained or unfounded anxiety of mind*, with sweats and chills; this has been universally observed in pregnant women, before and after parturition, and has been very dangerous, more so when it had contributed to prolong labour. In it, the least fault, or want of *help*, has been fatal, especially if the pulse high and full was compressible. None who knew this symptom have seen an exception to its fatality. In these cases, Montanna has had recourse to cinchona; if it frustrated his attempt, he gave up the case.

Pains of the feet. These pains are thought to be symptomatic of morbific irritations in the stomach. Montanna has observed them principally when the intestinal flux took place, or when vomiting assumed the inverted and horrid character of *miserere*, which is frequently accompanied by cramp of the calves of the legs.

In April, May, and June, of the year 1813, *epistaxis*, or bleeding of the nose, was frequent, and critically good, unless patients had been untimely bled; sometimes after it disappeared as a symptom, it came on again, and was still more favourable; but in August it had almost ceased to be observable.

6. In terminating the description of the symptoms of this terrible epidemic and its diagnosis, we must remark that, like all pestilential and malignant epidemics, it was observed that a great proportion of the sick were at the same time exhibiting the symptoms of different, although malignant disorders.

Montanna has seen with it numbers of malignant intermittents (usual in Mexico) of that kind which the French call *Ataxique*, and that they were uniformly fatal to the

old, and to children; in these the evolutions of the stages which he accurately describes, frequently assumed the remittent type, and the sick came to death, remaining in a perfect state of yellowness. One circumstance only, (which in that epidemic is not unexceptionable) that of the black vomit, would be wanting to declare the simultaneous existence of the yellow fever with the *Matlaltzahualt*.

Practical Cautions and Treatment.

We are come to that part of Professor Montanna's work which is the most difficult to condense, or to arrange to the taste of our readers. Yet we regret that time or space does not allow us to make a literal translation of the work of a truly learned, humane, and honest physician; yet we shall find, that in Mexico, as well as in all meridional states of Europe, practical medicine, however correct and judicious, is certainly neither efficient nor active enough.

Some particular occurrences in the history of the epidemic should not be omitted. Montanna has seen recoverable cases, in which, with a mild fever, pain in the extremities was so intense, as to render them immobile. A *taciturn* delirium was a sure sign that the patient would run away from his home and bed; a sudden eruption, and a becoming abundant of spots, were critical and salutary. During the remission of fever, a voracious appetite would take place, and owing to it, many patients eloped from the hospitals. A full and high pulse indicates hemorrhage, or abortion. In children the pulse could not be well judged. However plentiful might have been alvine evacuations, if they continued too long, they were harbingers of death. Only one safe character bespoke recovery; that of a serpentine undulation of the pulse. Anhelous or stertorous respiration (more seldom observed in men than in women) was a bad sign. Lethargy or deafness, with, or without delirium, when the evacuations were frustrated or interrupted, was fatal, although preceded by a parotid influx. Painful extremities and joints, however great, (if persistent) a good sign. Hunger, that could not be satisfied but by solid

food, mortal. Bloody flux, dangerous in children (much less in those over 6 years of age) and in adults, it was suspicious only at the third week; at that period it became fatal if attended with jaundice. Confluent spots, too early forming, are of a doubtful prognostic; if tardy, they were critical; not so, however, if they were scabby patches; and much less, if attended with jaundice. From their colour nothing certain could be deduced, owing to the various periods of their formation; *yet* eruption of black or grey pustules would always prove a fortunate symptom. In fine, a white tongue, after a remission of fever, always announced the favourable termination of the disease.

As far as Montanna has endeavoured accurately to describe this universal epidemic, he is guarded against restraining medical investigation, or inquiry, by *Arabico-Scholastic* nosologies or nomenclatures. Thus he adduces many instances of anomalies in the disease, in which the symptoms and periods have been inverted, shortened, or prolonged; he declines accounting for them, because he thinks nothing is more absurd in medicine, than pure *rationality* itself, and theoretical ideas, without experience and facts to support them.

A young lady, the daughter of an eminent physician, he says, who had just been fatally attaked by the epidemic, having exemplarily and tenderly discharged all the possible cares that filial piety could embrace, was taken with it: in this case, a pain in the stomach was the first symptom, a great difficulty of respiration succeeded; then vomiting and cholera morbus, terminated by copious alvine discharges of black and grumous blood, without fever or eruption afterwards. In this instance the crisis was anterior to the characteristic form of the disease, which therefore did not take place.

A young man of the hospital of the Lazaretto became the subject of four lengthened periods of the disease, without a critical resolution of it. Having no fever, he was dismissed, and sailed for the West India Islands. At his return, he was immediately taken with a violent fever; he broke out with an infinite number of spots of a purple or black colour; in three days they disappeared, and were replaced by the natural colour of the skin.

These, and other cases, testify the variety of causes that can alter the form of maladies, before we can assign names or classification.

We cannot follow up our estimable Professor Montanna, in his philosophical ideas, of the most probable causes of this terrible epidemic, which he justly places in certain atmospheric elements, independent of miasmatic exhalations, which by excess of heat and oxygen, may have injured the animal economy, as the last has often overturned the laws of organic life; nor would we analyse, adopt, or refute any of the recent or ancient medical systems (Brown, Bichat, Chaussier,) which he seems to cherish the most. But whatever may be the doctrines, he has full right to adopt; to one of his professional attributes, we think it our duty to address our homage of respect; to his scrupulous attention, (like that of the great Coan sage) to seasons, to climate, to local causes, and to the physical and moral constitution of the inhabitants of his country; from this we may, at a future day, extract his interesting description of the life, habits, regular food, and practice of the Mexican Indians.

It appears that the successful mode of treatment of the terrible *Matlaltzahualt*, has excluded bleeding as much as we have reproved it in *pneumonia typhoides;* although the epidemic was inflammatory, nor would the violent irritation of the stomach permit stronger agents than saline mixtures with absorbent earths, Peruvian bark, in acidulated mixtures with vegetable, and sometimes mineral acids; of these the tonic and antiseptic powers were eminently efficacious. Aromatic drinks, sometimes mixed with ammonia, or *citrate of potass*, were necessary to allay an unextinguishable thirst. Mustard and capsicum by frictions, with acid stimulants were employed, with other rubefacient ingredients, to counteract a dreaded state of torpor, or to accelerate a critical formation of spots on the skin.

Montanna having frequently seen cases, complicated with worms, had introduced a singular remedy as a tonic, a febrifuge, and an anthelmintic; it was the saturated tincture of the *Faba St. Ignatii*, one of the family *strychnos;* this must, no doubt, have had a great influ-

ence on the nervous system. (Vid. Med. Register, Vol. I. description of this poison, by Dr. F. Pascalis.)

Our ordinary readers will not, however, omit inquiring, with a motive of extending analogical inferences on the doctrine of epidemic diseases, whether or not the Mexican *Matlaltzahualt* is not the same disease which has, during many years, prevailed in the American states, commonly called *New England*, and has much alarmed their populous districts, by its fatal effects, about ten years ago, during many successive seasons, and was by many called spotted fever? The extant works of Dr. Elisha North, of Joseph Gallup, M. D. and of Dr. Job Wilson, forbid us to think that it was similar.* The Mexican disease was universal in the country, and marked by more malignant, rapid, and fatal symptoms; its spots were critical exanthemata, rarely pustulous or scabby, and formed by various discolorations of the skin; it was, besides, attended with hemorrhage, the timely and limited character of which became salutary. The Mexican disease was pestilential by the rapidity of its ravages, by delirium, and disinclination of patients to remain confined, by the strange alteration and putridity of corpses after death, and by its determination in the brain, or in the stomach. On the contrary, the American spotted fever differed from all these symptoms; it required, in general, a stimulating treatment, which certainly has not been the case with the Mexican *spotted fever;* that this epidemic might be a variety of the other, (for the sake of nosologists,) we will, however, admit.

Aloysius Josephus Montanna, M. D. Dean, or President of the Faculty of the Royal and Pontifical University of Mexico, &c. &c. who has honoured us with his communication, is, we find, the author of a valuable, and truly original work, on the aphorisms of Hippocrates, in which he has undertaken to arrange systematically from the edition of FOESIUS,† all the subjects treated on by the immortal sage, with his own Latin comments: it was thus arranged for the use of

* Vide Medical Repository, Vol. III. New Series, p. 149. 253.
† Vide life of Foesius, Medical Repository, Vol. XIV. p. 221.

students, and it surpasses, in point of practical usefulness, any thing of the kind we have seen.

During the calamitous prevalence of a pestilential epidemic, which has continued several seasons, and had not disappeared at the last date of his work, he alone was empowered and authorized by government to advise and direct the medical police, and the whole faculty of that immense capital. That he has done great good to his fellow citizens, and allayed their distress, we can infer from two circumstances in his writings. The one is a kind and respectful address to his fellow practitioners, whom he intends to direct in their humane services, without upbraiding them either by upstart opinions, or by an undue sense of their inferiority, much less by an importunate surmise of his superiority; scrupulously avoiding also to provoke any useless or untimely controversy. The other is, his successful mode of counteracting the absurd opinions of *importation* and *contagion*, by which he has more endeared his fellow citizens, like one family, to take care of each other, without the dread and horror of being deadly to each other, while they were afflicted with a general calamity.

We are surprised not to find in the Mexican account any stated proportion of the mortality which was incessantly resulting from the *Matlaltzahualt*, and which we must admit to have been very great. Eloquent indeed, bitter and frequent are the reproaches which Montanna freely pronounces against that pernicious class of men, who in time of so dire a calamity, exercise a thousand charlatanries to alarm or to deceive the sufferer, to blame or to discredit public measures, to prescribe medicines, having not qualifications so to do, and to deal with drugs or specifics, retaining not any responsibility whatever; quacks, pretenders, pseudo-philosophers, venders of nostrums, hateful and corrupt intriguers:

"Ambubiarum Collegia, Pharmacopolæ
Mendici, Mimæ, Balatrones, hoc genus omne."
(*Horat. Sat.* 11. *Lib.* 1.)

Experimental Observations *on the* Medicinal Properties *of the* Ergot, *or* Spurred Rye. *By* Pierre Chatard, m. d. *of the University of Montpellier, Member of the Medical Societies of Marseilles, New-Orleans, &c.*

(Translated from the French, by Dr. F. Pascalis, for the Med. Repository.)

THE spurred rye* has long ago been known in France by the virtual property attributed to it of producing gangrene, or mortification in the extremities of the human body; but I am not informed that any medical authority has ever countenanced it as a proper remedy to accelerate parturition; yet midwifes and matrons, in certain districts of the kingdom, have been known to recommend, and use it for a similar purpose, more than fifty years ago. An eminent physician of Lyons, Mons. Degranges, has, it is said, presented an essay on this subject to the Medical Society and Faculty of Paris.

American physicians of considerable repute have, to my knowledge, recommended the same, more than ten years ago, with so much confidence, that they have technically introduced the ingredient in the Materia Medica, under the name of *pulvis ad parturientes*. (Vid. Medical Repository, Vol. II. No. I. p. 271.) The most distinguished of them have been, I believe, Drs. John Stearns and Samuel Akerly. Although much has been said and written in favour of this *new* remedy, I believe that it is not generally employed. Owing, however, to a recent invitation I have received from an eminent physician, who has, in one of his letters, highly extolled its efficacy, I have been induced to depart from my usual reluctancy to new, and not universally authorized specifics, yet not without a scrupulous attention to the result, which I now present to the public. Should these provoke any censure, or reproach for my *unasked interference*, I must answer, that on me also, some professional and imperative duties are devolved, for humanity's sake, however weighty might be the contrary opinions of professional brethren, whom I sincerely re-

* The nature and analysis of spurred rye, is given in a note at the end of this essay.

spect. Should I be mistaken, and be found faulty, the publicity of my observations will, at any rate, warrant the rectitude of my motives, and become, in the hands of more successful experimenters, an effectual example to guard against my own errors.

It would have been highly pleasing to me, to write under the banners of those, who do contend that the Ergot is an *effectual* and *innocent* remedy. I commenced my work with the hope, not only of joining them, but of participating in the happy task of effectually remedying the pangs and cruel moments of a sex, the courage and virtues of which I have had so frequent opportunities to witness. I believe, however, that my opinion of the Ergot is well founded, and that I can answer for it, precisely to those whose rank, authority, and eminence give the best right to decide upon it.

The twelve following observations are the only ones I have made; and I give them out in their natural order, with as much regard to any circumstance of facts, as I presume any man has to be satisfied with. One, especially, I feel bound to establish, in point of the peculiar prudence, delicacy, and experimental skill with which experiments of this kind should be conducted, and which any reader not acquainted with me has good right to question, until he is informed, that within the last seven years, I have, as a professional accoucheur, delivered no less than seven hundred and sixty five women, and that I compute an equal number of accouchments in a preceding period of my avocations, of which I have not exactly kept an authentic account. Another fact, also, of which I beg my medical friends or antagonists never to revoke in doubt, is, that in no experiment have I neglected to ascertain the existence of the best condition of presentation, and other relative circumstances between the mother and the child, that might have been in the least untoward, or contrary to obtaining a full result of the medicinal properties of the spurred rye.

Observation I.—May 13, 1818. Mrs. P. was for the second time in labour; it had lasted 24 hours, and did not progress. The presentation of the head was good, and nothing seemed to be exceptionable against the trial of the spurred rye. An infusion of thirty grains in two

ounces of hot water, during half an hour, was judged strong enough, and was exhibited every ten minutes, by spoonfull; but no acceleration having satisfied my expectation, I did irritate by friction the *os tincæ;* at last, lively contractions took place, and the woman was delivered. The child was still born; no means that was resorted to for reanimation could be successful, and he died half an hour after birth.

The supporters of this remedy assert, that it is visibly operative on women in six, ten, or twenty minutes at furthest; in this case it was yet null, after half an hour. I am therefore justifiable to think, that parturition was determined by frictions on the *os tincæ.* This irritation is resorted to by accoucheurs, especially in alarming floodings. By this case, and others, we will be authorized to attribute the death of the child to the operation of the Ergot.

Observation II.—May 16, 1818. Mrs. C. mother of many children, had been 30 hours in labour, and left without assistance, almost in despair, when I came to her bedside. I found a very regular presentation of the head, which was somewhat advanced. I therefore could try the above remedy, and in the same manner as in the above case; 35 minutes were elapsed before any effect could be perceived in the mother, or in the uterus. She then requested me to put an end to her misery by the forceps, and that operation I accomplished in a few minutes, showing her a fine male living child.

It may emphatically be said, that in this case, the spurred rye has been inefficient. Not the least effect was even perceived after parturition. Every circumstance, however, must have been favourable, if I judge from the success with which I could apply the forceps.

Observation III.—June 16, 1818. Mrs. H. was in labour for the first time; had lasted above 48 hours. The *os uteri* was opened less than a two shilling piece. That organ was evidently in want of regular action. Again I resorted to the Ergot. I gave thirty grains in powder, and in one dose. In a quarter of an hour, violent pains succeeded to each other; but alas! their continuation during two hours, procured but a very inconsiderable progress of the head, which remained in

a good position. Vomitings succeeded, without any further advance; although the pains continued distressing during 12 hours longer. I hoped no longer to deliver her in the natural way; and yielded to her request of employing the forceps. Just as I commenced the operation, she was violently convulsed, and in an hour, she experienced three fits, notwithstanding two copious bleedings, during the interval of half an hour after the first convulsion. I must observe, that several weeks before, the woman had also been bled. A consulting physician, now sent for, advised, that she be forthwith, and forcibly delivered. I joined in that opinion, for the sake of her life; for I strongly suspected that the child was dead, as was afterwards convincingly proved; it was extracted by crotchets, to the great relief of the tortured mother.

In this instance, the operative property of the Ergot on the uterus has been evident, during two hours, but to very little purpose; nay, to that degree, that it has produced dangerous consequences. Here it has provoked alarming convulsions, although Dr. Waterhouse assures us of its admirable efficacy in cases of puerperal convulsions. Shall it be said, that my dose (30 grains) was too strong? It may be; but Dr. Malachi Foot has prescribed half a tea cup full of the powder in decoction, with cloves; that is about one ounce; a dose sixteen times stronger than that which is ordered by Dr. Stearns, who certifies that a dose equal to that I have employed is sufficient, and is more active than the substance itself.

I must affirm here, that the infusion of a scruple of the Ergot, pulverised in an ounce and a half of boiling water. as recommended by Dr. Akerly, appears to me the best mode of exhibition.*

* Our preference, in this case, of the crotchets has been commanded by circumstances. We had not help enough. The sufferer was in a state of troublesome delirium; it was almost impossible to hold her a second time in the same attitude; while it was of the greatest importance not to excite more irritability. Firmly believing that the child was dead, the crotchet was the safest, the easiest. the most speedy, and less painful artificial mode. That the child was dead, we give the following proofs. 1. It did not give any sign of life when the cranium was opened. 2. It did not excite the smallest sign of hemorrhage. 3. The funis was discoloured in the greater length. 4. Decomposition was evident in many parts of the body.

Observation IV.—July 29, 1818. Mrs. H. for the tenth time in child bearing, had lingered 24 hours, without any decisive progress; which seemed at hand, from her well disposed mind, and good position of the head. Thirty grains of the *pulvis ad parturientes* infused half an hour in hot water, was prescribed, every ten minutes. At the third dose, the pains throughout the abdominal region became shockingly excessive, and in three hours and a half she was delivered of a living child. This remedy, it seems, did continue to operate on the uterus, and external parts, which became tumefied, livid, and painful. She complained, also, of much giddiness, and head ach, and was not relieved until she had spontaneously, and copiously vomited.

No bad effect, it must be confessed, could be perceived on the child; but the mother had to pay dear for the few moments during which she would have suffered without the Ergot, if it be true that it accelerates it. Yet the time now given to it, to be effectual, was more than sufficient to accomplish labour in ordinary cases, and in those also of suppressed, or ineffectual uterine contractions.

Observation V.—August 12, 1818. Mad. L. had already borne four children. She is of a delicate, although sound constitution, and frequently indisposed. The labour had lasted 12 hours, with light and distant pains, promoting the dilatation of the *os tincæ* to the size of a two shilling piece, a good pouch of waters, and perfect presentation of the head. Having administered the same remedy as in the last case, no effect took place during half an hour. I then tore the membranes, and irritated the uterine orifice, as it was done in Obs. I. The pains only then became energetic, and she was delivered after 55 minutes. The child had not suffered from the Ergot, but it acted as a powerful emetic on the mother afterwards.

These subsequent effects prove, no doubt, that our remedy has, in this case, been operative. I apprehend, however, that if the discharge of waters had not been artificially promoted, and the uterus irritated, the child must, in all probability, have suffered from the slow operation of the Ergot, and be still born.

Observation VI.—August 21, 1818. Mrs. L., aged 27 or 28 years; first child bearing; of a middle size, and strong form; had been bled a few days before her labour, which had continued 24 hours. The uterine dilatation was not above a two shilling piece diameter; yet the pains were frequent and sharp. In this case I should have preferred bleeding to any other remedy. I administered in two doses, at ten minutes interval, the infusion of 30 grains of spurred rye, in two ounces of boiling water. In 20 minutes, it had this time attained the uterus, and much dilated its orifice; the pains increased, and labour was gradually accomplished, within one hour and a quarter. The child was born *asphixiated*, although he lost blood from the funis, as much from design, as from accident; he could not obtain the faculty of breathing until several hours after birth.

This case proves again, that the efficacy of this ingredient is uniformly dangerous for the child, although it may be various or uncertain, in the mother, and in the uterus. However advantageous it could be to the last, as it became, in this instance, we could not, for unnecessary advantages, so evidently put to risk the feeble life of the offspring.

Observation VII.—August 27, 1818. Mrs. S., a young woman, had been, for the second time, in labour, many hours, without much distress. Although when I arrived, pains were more frequent and sharp, I did not hesitate to administer the spurred rye in the ordinary method, because the *os uteri* was very little dilated, and thereby I could better observe its progress. In about 20 minutes after the third spoonful, the pains grew intense, and the opening larger. The contractions were steadily kept up, and delivery took place half an hour after the last dose of the infusion. In the mother, nothing appeared out of the way, but a well-felt lowness of pulse. The child was also still born, and I apprehended his death instantly, from my own endeavours, and long anxiety to bring him to life.

The remedy has visibly been advantageous to the mother in this instance, but it has, in the same proportion, been traitorous to the child.

Observation VIII.—October 2, 1818. Mrs. W. had

experienced small pains during 9 hours, which feebly affected the uterus. The usual infusion of 30 grains, in one dose, was given, which, in less than ten minutes, commenced an effectual labour, and terminated it in less than half an hour, without any bad effect in the mother, or in the child. I must, however, confess, that at the moment she took the Ergot, the pains were evidently become more sharp and effectual; and from this circumstance it remains probable, that the prompt and regular delivery, was no more than what she would have naturally depended upon, as in the two following instances.

September 28. I had been attending during six hours, at the bed side of Mrs. K. had no greater dilatation of the *os tincæ* than a half dollar diameter, and prescribed the Ergot; but during the short space of time necessary to prepare the infusion, delivery was accomplished.

September 29. The case of Mrs. S. was of the same nature. I was holding the draught, to give it myself, when a supervening pain plainly satisfied me, that it was not required. The term of gestation having been accomplished, delivery was effected, within 30 minutes.

Who would not remember to apply to these cases, the wise axiom of Hippocrates: *Experiencia Fallax, Judicium difficile?* What experienced accoucheur has not witnessed numerous instances of those *caprices* (if I may be allowed the word) of uterine functions? They will even take place when an apparent exhaustion might justly alarm us, and command the use of artificial means. All at once the uterus recovers its energy, and gives us no time to replace the mother on the couch, which she had left a minute before.

Observation IX.—October 8, 1818. Mrs. B. a mother for the sixth time, had been in labour 17 hours, with irregular and feeble pains. I ascertained that the matrix was sufficiently opened, and the *os* very flexible, that nothing was opposed to immediate delivery, but a want of uterine energy. This circumstance being so well calculated to assert the specific property of the spurred rye, I gave in one dose the whole infusion of 30 grains. After 20 minutes, the pains were more frequent, and grew successively more intense for an hour, thereby effecting a very regular delivery. This instance would

certainly render the remedy an invaluable one, if such operation could always be depended upon; but, besides its untoward effects on various constitutions, it already sinks below any degree of estimation, from its frequent and dangerous effects on the child.

Observation X.—October 21, 1818. Mrs. P. This lady had always experienced tedious labours; and now she had already suffered much, during seven hours; the uterine orifice was scarcely opened; I therefore determined upon a trial of 30 grains of infusion in half an hour; there were some appearances of operative execution; the waters broke, but five minutes after; a copious vomiting was produced, which renewed the primitive state of uterine torpor. It was only in two hours, and with continued efforts, that parturition could be accomplished. The child was *asphixiated;* but that perilous condition was soon altered by warm spirituous friction, and by a bleeding from the funis. The blood was already very black.

We see in this instance, a different *modus operandi.* After it has commenced favourably, it acts as an ordinary active emetic, and leaves no further marks of its presence. The child born in a state of lypothimia, had its blood considerably altered; he was restored to life, nevertheless. That of the first observation, more particularly assisted, having not escaped the effects of the poison, made me seriously apprehend the death of this.

Observation XI.—October 26, 1818. Mrs. F. Confined for the first time; and after ten or twelve hours labour, appeared much weakened. I therefore thought she would eventually be much benefitted by the Ergot. The usual dose of 30 grains did not, however, accelerate the birth, or excite any untoward circumstance. Perhaps it was owing to a preservative disposition of the constitution, which in so many instances guards individuals, and protects them against *universal* or *contagious* diseases.

Observation XII.—November 6, 1618. The black wench of Mrs. R. had been all night tortured by colics; and at 8 o'clock in the morning I was requested to ascertain, whether being pregnant of her first child, she might not be in labour? I pronounced it so. I re-

turned at 12 o'clock; when much progress having been obtained, I informed an attending midwife, that labour could be accomplished in two hours. Wishing, however, to try once more the accelerating power of our remedy, I gave a dose of 30 grains in nature. When I came again, I found that she had been delivered one hour and ten minutes after she had received the remedy, with no stronger, or quicker pains; she had apparently received no injury from it; but the child was still born; having black lips, and the head bluish, symptoms of *asphixiation*. This other fact proves how little confidence we must give to this specific. It may be said, that this death might have resulted from other causes, as the like is not uncommon among even healthy mothers. Granted; but it was testified that she had much quickened before taking the Ergot; now, since we have witnessed the same operation six times out of twelve trials, we cannot be permitted to entertain any doubt of it.

We must then conclude, that the *pulvis ad parturientes* not an innocent remedy, as some physicians have asserted it, with the laudable motive of facilitating and accelerating labour. That it is an uncertain means, and not always to be depended on, the 2d, 5th and 11th observations manifestly will prove. It should be dreaded for the child, at least with equal chance of fatality, or of success, unless I have been much misled, or mistaken in my observations. When properly administered in cases free from malconformation of the mother, or of the child, where the constitution is weakened by former bleedings, or the uterus inert requires some new power of action, then, I confess, this agent may effectually impart a new vigour to the mother; yet its deleterious influence on the life of the child, remains to be encountered; he may die in *utero*, as it happened in the 3d and 12th observations; or be born, more or less in danger of death, as in the 1st, 6th, 7th and 10th cases; although he may resist the danger, as in the 4th, 8th and 9th instances.

It appears reasonable to infer, that were we well acquainted with the susceptibility of every individual to be excited by the Ergot, and the real dose to be adapted to each, we might employ it with more safety and advan-

tage. Without this almost impossible datum, it will always remain dangerous for the offspring. As for the mother, very little is to be apprehended for her, from the *pulvis ad parturientes*, unless too soon exhibited to plethoric women, in whom the natural rigidity of the system requires the artificial relaxation effected by bleeding; for the Ergot naturally operates as a tonic; and certainly its operation is quite opposed to that of bleeding; it is always prompt, at least within 30 minutes, provided there is an uterine susceptibility, which is certainly not always the case.

Let us now attempt some inquiries on the operative effects of the spurred rye in animals, and whether it can promote abortion.

One ounce of the drug, in powder, boiled with some water, and mixed with bran, was given to a strong, and large sow, at its near period of littering. It had no other effect but to irritate the animal, and to increase the secretion of urine.

The same dose to another, and in the same circumstances, has acted as a purge, and equally agitated the brute; no abortion.

Three ounces, within two days, to a small sow, half gone only, have produced no sensible effects; it soon returned to its feeding trough as usual.

The same dose to a goat, half a period before littering, has suspended inclination to food, rendered the creature languid; same dose repeated next day; same effect, without going.

Four ounces in substance to a cow, in the fourth month, have only diminished the hunger for 24 hours.

Thirty grains in a strong decoction of an ounce, and at one dose, to a very small slut, near littering, has produced no effect.

It may be inferred from these six experiments, that the spurred rye has not any peculiar effect against the natural littering of animals. By continuation of increased doses, it might, however, injure them; it would then be from different principles. If I may be permitted to reason by analogy, I would say, that the active properties of the spurred rye have not a greater determination to the uterus than to any other part, or extre-

nities of the body. During labour, it has a visible tendency, or spontaneous determination to the uterus, because, during that function, this has become a center to which all other powers concentrate their energy and irritability, and it appropriates to itself all the excitation which is offered to the system, and in another situation would be equally divided.

The same physiological phenomenon will explain why an emetic would really promote, or accelerate labour. Hence many old and wise women are found in all countries, possessed with some aromatic, or spiced warm drinks, without which, they believe, no labour could be accomplished.

I now beg leave to conclude, by observing, that truth, in occult laws, and properties of things, is always difficult to come at. The most scrupulous attentive observer himself, may be led into error by numerous incidental causes, that could not be seized, nor foreseen. Would any body assist me in detecting my own mistakes, I would rejoice, and sincerely applaud the declarations of Dr. PRESCOT, whose opinion is diametrically opposed to mine. Should it, however, be quite the reverse, I must say, that his work will do great harm in Europe, for it has been much circulated in England, afterwards translated into French, by Mr. CHARBONNIER, and inserted in the Article *Ergot*, of the 13th volume of the Dictionary *des sciences medicales*.

CHATARD.

Baltimore, December 6, 1818.

Remarks.

The correctness, good sense, and impartiality with which the above experiments have been conducted, and the peremptory inferences deduced from them by an excellent judge, will, it is hoped, suggest more caution in the use of spurred rye. Should it not, for the sake of professional responsibility, appear preferable to reject it entirely, it becomes a conscientious duty to investigate cases and facts of more still-born infants with spurred rye than without it. The hint of that terrible consequence, has already come to us from quarters

which not a word of the above inquiry could have reached, and which, no doubt, will scrupulously be attended to. To complete the present subject, we are happy to have it in our power to subjoin the following documents on the nature of spurred rye, from an introductory lecture of Professor MITCHILL, in the Medical College of New-York, at the opening of his last course of Natural History, when on the subject of mistakes and deceptions to be avoided, in the acquirement of that science, he coupled the *Sea-Serpent* of Massachusetts, and the spurred rye; the first huge monster had resolved itself into floating logs of wood, or speckled ducks swimming in file, or what not; the latter, a fashionable remedy, within a few years, in puerperal cases, was now found, and transformed from a vegetable, into a corroded collection of animal matter.

"Botanists," said Dr. MITCHILL, "yet debate whether the Ergot is a diseased grain, or fungus, or vegetable, which occupies the receptacle of a germ that had perished. It is not my intention, at this time, to inquire whether it is a morbid seed, or a spurious growth in the place of a seed. That examination can be made more conveniently at a future meeting of the class. Spurred grain is produced in several gramineous plants, but more especially in rye, (secale cereale.) Mr. RENAULDIN, in the new French Dictionary of Medical Intelligence, has related, at considerable length, the miseries which feeding upon bread made of such rye produces upon human beings. He calls the disorder *Ergotism*. Its symptoms are referred to two heads, or classes: 1. *Convulsive* ergotism, accompanied by vertigo, spasms, convulsions, and other minor symptoms. 2. *Gangrenous* ergotism, followed by dry mortification, or sphacelus of some part of the body. Sologne, in France, is the region whose inhabitants are more afflicted with those distempers than any other; and therefore ergotism, when spasmodic, is called convulsions of Sologne, and when gangrenous, gangrene of Sologne.

"TISSOT and READ have written best on this subject.

"In our own country, two other effects are ascribed to the spurred rye: 1. The production of the spotted

fever; and, 2. The excitement of the womb in lingering labours.

"Although doubts, or difficulties obscure both branches of this subject, it is not my design, at this sitting, to clear them away. My present object is, to designate to you, by actual specimens, what sort of production ergotted rye is. I consider this as essential to a just acquaintance with it, as an article of the Materia Medica.

"You here behold a bundle of rye from the harvest of 1818, containing spurred grains in great number, and some of them an inch long. The heads were collected by my friend Dr. ABRAHAM CLARK, of Newark.

"Of these ergotted grains, a part is bored, or perforated by an animal, and is of that damaged quality called *worm-eaten*. Here are the cavities, or chambers, in which the creature lived. Here he excavated his habitation. And here are the foulness, the feculence, and the excrement that proceeded from him while he occupied the tenement.

"Turn your eyes hither, and you will behold the devourer himself. Having passed through the insect forms of *ovum* and *larva*, and *chrysalis*, he has come forth in the perfect state denominated the *imago*. These individuals have crept from their lurking places, of their own accord. By a proper search, they will be detected in their quarters. On breaking this grain of rye, the insect is disclosed to sight. You observe him to be of the order of the coleoptera, by his shielded back. His colour is a deep green, like a May-bug, and his size is less than that of the bruchus, which nestles in the pea.

"Such being the constitution, or condition of spurred rye, what is the medicine made of it? Why, certainly a farrago of corroded ergot, of entire ergot; dung, insects, and all. To which of the ingredients does the infusion, or powder of Ergot, owe its efficacy? It is rational to suppose, that the quality of the entire Ergot will vary from that which is damaged; and that the parcels abounding with insects, possibly like cantharides, will exert a still different power.

"I exhort you, therefore, to inquire into the subject with a becoming vigilance. By some pupil of this school, probably by a person now within the sound of

my voice, may not only this task be accomplished, but a great number more, that are waiting for the exertions of industry, guided by genius."

The analysis thus given, by Professor MITCHILL, of the spurred rye, may be illustrated by the account given by BUFFON, and by Abbé FONTANA, of the *spurred wheat*. In his vol. xviii. p. 25. edition of Sonini, the Count informs us, that spurred wheat having been soaked in pure water ten or twelve hours, resolves itself into a great number of insects, or worms, resembling eels, agitating themselves with great velocity. When the water is left to dry, they cease to move; but they can be revived again, by the addition of water, and as often as the experiment is renewed. He produces also the authority of FONTANA, who, a long time after him, had made the same discovery, *as he thought*, not knowing what he had already published; but, nevertheless, had by the same process, resolved the spurred wheat into a multitude of moving filaments, or eels, which could be set at rest by evaporation of water, or successively revived by it. It appears, however, that there would be a great difference between the insects of the spurred rye and that of the spurred wheat. The first have already progressed into other stages of existence, and metamorphoses of insects; while the latter are, as yet, in the primordial state only of organic molecules. *Editors.*

EXTRACTS *from a* REPORT, *made by* SAMUEL L. MITCHILL, M. D. *Surgeon-General of the Militia of the State of New-York, to his Excellency* DEWITT CLINTON, *Commander in Chief, &c. pursuant to his command; and laid by the Governor before the Legislature.—New-York, October* 30, 1818.

[Military exemptions, in cases of infirmity, or defect of body, or mind, and the rules which in military life, are best calculated to preserve the health of the soldier, remain important subjects, ultimately to be settled by medical authority. Next to forensic medicine, the de-

cisions and duties of an army medical board or department, are indispensable objects of inquiry, as they are daily offered to professional men, at the risk of much responsibility. With these motives, we need not further recommend the attention of our readers than to the following report.]

THE question, whether a man is really incapacitated, is at once delicate and important. It is delicate, because it stamps the character of blemish or imbecility upon a fellow-citizen: it is important, inasmuch as it has a tendency to weaken the protecting force of the commonwealth.

I. Bodily disabilities may be classed under several titles, as follows:

1. DISABILITIES HAVING THEIR SEAT IN THE HEAD.—Habitual head-ache; palsy of the tongue, or of the organs of voice; mutity, or inability to speak; enlargement or malformation of the skull; injuries by wounds, or otherwise, to the cranium, are cases meriting the consideration of surgeons and commandants.

2. DISABILITIES HAVING THEIR SEAT IN THE ORGANS OF SENSE.

A. *In the organ of sight.*—Blindness of both eyes; blindness of the right eye; extreme nearness of sight, rendering the individual incapable of distinguishing a man at the distance of a rod; indistinct vision from torpor of the retina; opacity of the humours, or obscurity of the coats of the eye; albinage, with inability to see well by day-light; hemeralopia, or incapacity to see as well as other persons by night, are plain cases; while blindness of the left eye, squinting, ophthalmia, and blear eyedness, require more particular examination.

B. *In the organ of hearing.*—Total deafness, or hardness of hearing, too great to allow the individual to understand the word of command, or the sound of the drum, can be readily ascertained.

C. *In the organs of feeling and motion.*—Trembling, or unsteadiness of the nerves and muscles, so considerable as to prevent the performance of the manual exercise of the musket, or the direction of it properly to

an object; paralytic numbness, or insensibility; present frequent cases.

3. DISABILITIES HAVING THEIR SEAT IN THE TRUNK OF THE BODY.—Distortion of the spine, or back bone; a projecting, or rickety sternum; a hump-back; a stiff, or wry neck; a very narrow chest, with asthma, or shortness of breath, are some of the examples that will present themselves.

4. DISABILITIES HAVING THEIR SEAT IN THE UPPER LIMBS.—Dislocations of the shoulder, more especially of the right one; stiffness of the elbow; weakness of the wrist; monstrous formation of the hand; loss of a thumb, or finger, particularly of the indicator, or trigger-finger of the right hand.

5. DISABILITIES HAVING THEIR SEAT IN THE LOWER LIMBS.—Dislocations, or other disorders of the hip-joint; stiffness, or weakness of the knee; relaxation, or wryness of the ankle; club-foot, or other monstrous formation of the foot or toes; shrivelling, shrinking, or shortening of the limb; and such accidents as render a man lame and unable to march.

6. DISABILITIES FROM LOCAL INFIRMITIES IN OTHER PARTS OF THE BODY.—Hernia, or rupture; fistula in ano; hydrocele, or watery tumor in the scrotum; chronic diarrhœa; incontinence of urine; are, among others, matters for consideration.

7. DISABILITIES FROM A WANT OF GENERAL HEALTH.

A. *Temporary.* Fever, inflammation, sprain, fracture, dislocation, syphilis, and some other accidents, will frequently occur as subjects of inquiry.

B. *Permanent.* Epileptic fits, St. Vitus's dance, old ulcers, habitual drunkenness, may be ranked among occurrences of this class.

II. Mental disabilities may be arranged under two divisions.

1. DISABILITY FROM A WANT OF COMMON SENSE, WHEREBY THE INDIVIDUAL IS SILLY OR SHALLOW.—Natural dulness, incoherence of thought and conduct, fatuity, folly, idiocy, all belong to this section.

2. DISABILITY FROM AN ABUSE OR PERVERSION OF COMMON SENSE, GIVING RISE TO ERRORS IN PERCEPTION AND JUDGMENT.

A. *Melancholy.*—Waywardness, indelible false notions, hallucinations, and erroneous impressions, impairing the regularity and consistency of conduct.

B. *Madness.*—General derangement, mistakes obstinately adhered to with regard to fundamental principles of reasoning or conduct; perverse conclusions, drawn from the mistaken or wrong premises, a crazy state of mind, lunacy.

From this summary, it appears, that considerable deduction is made from the number of enrolled male citizens, by the infirmities and diseases to which human beings are subjected. It is a disagreeable task to pass sentence of unworthiness upon one's neighbour or friend, as it lessens his value and usefulness in life. A man so underrated, cannot but feel a sense of inferiority. He is secluded from the parade, when the most handsome and beautiful portion of his own sex are arrayed to perform their gymnastic and athletic exercises. As such an exclusion is grounded upon corporeal or mental defect, it is hoped no one will consent to be placed on the invalid list, unless he is really unable to perform service.

The effective force of the militia is thus obtained after many selections and filtrations. Yet robust and hardy as the officers and soldiers are, they are nevertheless liable to diseases and accidents of many kinds. The natural frailty of the human constitution, and the casualties to which it is unavoidably exposed, predispose to such occurrences.

By a prudent foresight, a department of the general staff has been organised to take charge of the sick, wounded, and disabled men. This seems to be the hospital department mentioned in the law. A more enlarged and comprehensive view of the subject might have led to the prevention of diseases, a business incalculably more interesting than their cure. The treatment of diseases is supposed to have been intended by the legislature, in providing for the appointment of a surgeon-general, with a hospital surgeon for each division; an assistant hospital-surgeon for each brigade; a surgeon and surgeon's mate for each regiment; and a surgeon's mate for each separate battalion. It cannot admit of a doubt, that the duties of the physician are

to be understood, although those of the surgeon only, are named. And the aid to be rendered by the medical staff embraces the whole of the remedies that can be provided or applied, whether they technically belong to one branch of the profession or the other.

The preservation of health, and the treatment of disease, in their broadest extent, thus belong to the medical staff. Its duties include the whole scope of prophylactic and practical means. These are always very interesting to an army. Nothing, perhaps, inspires a soldier with more courage than the assurance he possesses, that if he should be sick or wounded, he will be treated with tenderness, and rendered as comfortable as possible. The persons, therefore, who are the guardians of his health, ought to possess moral virtues, industrious habits, and conciliatory manners, in addition to professional talents.

They who are entrusted with such solemn functions, must be duly qualified for their performance. Of the surgeon's competency, there must be some adequate mode of forming a judgment. This will be best accomplished by a board, composed by the officers of the medical staff, for the purpose of examining all persons who shall hereafter be appointed to any office in the hospital department, and of certifying their fitness respectively for the same. It is respectfully suggested, that all appointments to be henceforward made by the commander in chief, or the council, shall be with a proviso, that the person so appointed to be a hospital surgeon, assistant hospital-surgeon, regimental surgeon, or regimental surgeon's mate, shall, as to his professional qualifications, be approved by the board of examiners. Such a board, if directed to consist of the surgeon general, and any three hospital surgeons, may be expected under their official responsibility to conduct examinations in a discreet, impartial, and satisfactory manner. Its members will form a correct opinion of the course of study, and the proficiency made by the candidate. They will likewise decide the rate, or amount of information corresponding to each grade of office in the medical staff. This regulation will produce two beneficial consequences; first, the militiamen will be intrepid in action, be-

cause they have a full confidence in their surgeons; and secondly, the surgeons themselves, feeling a due proportion of self-respect, will behave worthily, and like gentlemen of exalted sentiments. In both ways, there will be improvement in the social condition of the parties. The officer and soldier will remember, in their capacity of citizens, the favourable opinion they formed of the members of their medical staff; and the latter, in their private routine of business, will consider the public functions they may one day be called upon to exercise.

Too little attention has hitherto been paid to the preservation of the soldier's health. The surgeon-general seizes the opportunity of suggesting a few hints concerning it, to the commander in chief.

The lives of the militia are too precious to be lost by carelesness and bad management. They must be preserved for the overthrow of the common enemy, or for the comfort and protection of their families. In case the militia should be called forth into the active service of war, many inconveniences may be expected to arise from the sudden change of their mode of life.

Man must be seasoned by degrees to the fare of the garrison, the camp, and the field. Fresh habits must be formed. Considerable time will elapse before the constitution will be inured to a new course of diet and exercise. The powers of the body must be bent to martial impulse. By a gentle and gradual application of the necessary force, the system generally accommodates itself, and becomes reconciled to the novelty of its situation. The habit of military life is at length formed; and habit, as has been remarked of old, is a second nature.

But, in moulding and fashioning the frame of man by these modifying causes, it often suffers severely while it bends, and the old habit gives way. In some individuals, this is so rigid and unyielding, that it breaks before it bends. To preserve its pliancy and elasticity, and to prevent the cracking and snapping of the fibres, are matters of the utmost moment.

An attention to a few plain rules, it is presumed, will render the transition from domestic to military life as little inconvenient as possible. While the citizen is changing to a soldier, unlearning old associations and

habits, and acquiring new in their stead, this critical season of existence ought to be watched with peculiar care.

A. By attention to his food.

1. *As to its quantity.* On this point no doubt is entertained, that the government gives an abundant allowance. If there is any fault to find, it is, that there is too much; going beyond the limit of healthy nourishment, and impairing energy by fulness, repletion and plethora.

2. *As to its quality.* Experience has long been engaged in determining the best ingredients for a ration. Contractors and commissaries deserve severe punishment, for all fraudulent supplies of bad provisions. For it is a species of homicide, worthy of exemplary expiation, to destroy men by compelling them to eat unwholesome aliment. For every wanton act of this kind, removal from office, exaction of legal penalties, and criminal prosecutions, are proceedings which such a capital offender should be taught to expect.

3. *As to its preparation.* Man constantly employs art, and mostly fire, to render his meat palatable. The methods of cooking are diversified without end. When culinary skill is properly exerted, food is greatly improved; when it is unskilfully or improperly applied, aliment may be deteriorated or spoiled. The conversion of the ration, or any of its parts into cookery, is a work of prime consequence, both to the comfort and health of men. It ought to be so conducted, that no noxious article should ever enter the dish. Cooking is, in reality, an art deserving much higher consideration than it generally receives. It is important that its practice be well understood; and, that at least one man in each mess should be capable of preparing food in a proper manner.

4. *As to the time and manner of eating.* It is of great consequence, that food be received warm into the stomach. A soldier ought always to have it in his power to procure warm or hot water. This may be easily provided from a common cauldron, whenever there is a fire. It answers numberless useful purposes; and among others, is essential to the preparation of food and beverage; of purifying the body; of cleansing the clothes; and removing filth from bedding. Nothing refreshes a

cold and weary man more than the stimulus of caloric to the stomach. It is the best cordial and condiment in nature. Meals should be as regular as the service will permit; and the soldier ought to save the overplus of his eating for occasional, or extra refreshment. The strictest advice should be given against slovenliness, extravagance and waste.

B. By attention to his drink. Water being the basis of all drink, every possible pains ought to be taken to get it pure. It must be as free as circumstances will allow, from foreign taint of animal or vegetable putridity, and from mineral impregnation. The good sense of the commanding officer will order water containing heavy particles to be left to deposit its sediment; water holding particles of the same specific gravity with itself, to be filtered; water tinctured with particles that heat can dissipate, to be boiled. Sometimes wholesome water may be brought from a considerable distance to camp. Frequently, a copious supply of good water may govern the location of an encampment. In situations requiring it, the saving of rain-water deserves particular care.

Tea, coffee, and chocolate are but substances to impregnate water with nutritive, bitter, aromatic, or other qualities; and their use is recommended to soldiers.

For similar reasons, the use of infusions from yapon, spruce, wintergreen, and other salutary vegetables, deserves encouragement.

Grog, however, is the fashion and bane of our people. This is water impregnated with ardent or distilled spirit. Whether it is called cider-spirit, whiskey, rum, brandy, peach-brandy, or gin, it is virtually the same, and is taken into the stomach because it produces an inebriating excitement. As the habits of our citizens will not tolerate its discontinuance, the greatest caution ought to be taken that it contain no foreign drug or deleterious article, and that the men be prohibited from drinking more than their lawful quantity. The abuse of it is the source of incalculable mischief and misery. The most sober men are the most healthy, and can best bear cold, heat, vicissitudes of weather and fatigues of service.

C. By attention to his clothing. It may here

be observed, that the covering of the body, during the times of wakefulness and sleep, should be regulated by a due regard to the heat and cold of our extensive country and its variable climate. When the soldier is well fed and well clad, let him harden and strengthen his constitution, by going forth into the open air, and encountering the elements. He must learn to endure sunshine, wind, rain, and the changes of the atmosphere, without inconvenience or complaint.

D. By attention to heat. The summer temperature of seventy-five degrees, by Farenheit's thermometer, is hot for quarters. A heat considerably lower is consistent with comfort and health. Human beings engender a morbid sensibility by living in hot rooms, and by sitting near radiant fires. There is scarcely a more common or pernicious error, than that of accumulating too much caloric around the body by clothing, bedding, and overheated apartments. This predisposes the individual to become, the more readily, sick, on passing from such a room suddenly, into a chilly air out of doors; and *vice versa*, on passing rapidly from a wintry atmosphere into quarters where caloric abounds to excess. Indiscretion in these respects produces an endless amount of febrile and inflammatory diseases. If this subject might be illustrated by a plain and intelligible simile, it may be said, that an ounce of heat evolved by the animal power of the healthy constitution, is of more value than a pound derived from the consumption of fuel in a fire-place.

E. By attention to cleanliness. Pure air, clean water, alkaline ley, suds, potash, soda, soap, and lime, are the most efficacious agents to remove the unhealthy and offensive matters that accumulate around the human body. They operate by removing and neutralizing every thing filthy and unclean from the persons, clothing, bedding, chambers, and apartments of men, and thereby destroy or prevent that offspring of impurity, called contagion, infection, and pestilential virus. While solid reliance is placed upon these, a just estimate may be formed of the fashionable fumigations with sulphur, tar, and other burning substances, and of the exhalations from vinegar and other acids. These fumes appear to

act by exciting the organ of smell, and rendering it less susceptible of noisome and morbid effluvia; and not by removing them, nor the foul sources whence they emanate. The delusion of disinfecting a contaminated atmosphere by muriatic and nitrous gases, has been so fully exposed, that they are to be considered as worse than useless, and regarded accordingly. Where nuisances are too numerous or cumulative to be removed from men and their encampment, the men and their encampment ought to be removed from the nuisances. A change of quarters ought, in all practicable circumstances, to be immediately made; and the soldiers and officers removed from an insidious foe, infinitely more to be dreaded than an open enemy.

F. By attention to exercise. This is indispensable to health. The revilee and the morning gun, at daybreak, cannot be too much commended. To go to bed early, and to rise early, are practices of discipline and business steadily to be pursued. In addition to the equipment for parade, and the ordinary routine of duty, the men ought to be employed in something to rouse the mind, and stir the body. They will thereby expel the two most formidable adversaries that ever appeared, and which have undermined many a camp; these are sloth and idleness. Soldiers may work upon the fortifications, upon roads, construct bridges, learn to swim, to occupy themselves in their several trades and arts; and, in short, to do every thing their situation allows or commands, rather than sink into the abject condition of the sluggard and the lounger.

G. By attention to mitigate the rigors of service. In extremely cold weather, sentries may be changed more frequently. During sultry heats, marching may be done soon in the morning, or late in the afternoon, or what is often preferable, during the night. Above all, assure them, that drunkards are the first to lose the power of the stomach in hot weather, and to suffer congelation of ears, noses, fingers, and toes, in cold weather.

H. By attention to the state of the mind. Babyism, or the longing for maternal care and tenderness, is sometimes a distressing complaint; and home-sickness is reported in certain cases to have weakened the force of

armies. The assurance of kind treatment, and the engagement of the individual in some amusing and steady pursuit, are the best preventives and remedies.

I. By precautions against the epidemic, or spontaneous small-pox. Against this desolating distemper, variolous inoculation was usually practised, until the discovery that the vaccine matter would shield the constitution from its attacks, with more ease, and equal efficacy.

The professional treatment of militia men, when unfit for service, next deserves consideration. They may be ranked as sick, wounded, and disabled.

These are to be accommodated in hospitals and infirmaries. Though by some persons these two words may be deemed synonimous, and by others understood in different senses; the meaning of hospital, in this report, is a house or asylum for sick and wounded men; and by infirmary, a receptacle or abode for disabled men, though not actually sick or wounded.

Hospitals are of two kinds, temporary and permanent; they are also known as local and general.

1. *Temporary Hospitals.* Places for the reception of sick and wounded men, are occasionally required in the neighbourhood of bloody battles, or of unhealthy encampments. These may, in summer, be formed of barns or out-houses, or be reared, at short notice, of boards and slender materials, standing on blocks. Booths and tents may, on emergencies, and even through choice, be erected for temporary hospitals. They protect the patient sufficiently against sunshine and rain; and they allow ventilation better than buildings of a closer construction.

2. *Permanent Hospitals.* These are constructed of durable materials, for the accommodation of patients during a series of years. There are many plans for rendering them useful and commodious. But almost any well-constructed edifice, in a healthy situation, may be readily converted into such a receptacle, with wards, ventilators, fire-places, situations for patients, magazines for stores and medicines, and all the needful accompaniments.

The aid afforded to patients in both species of hospitals, is,

I. MEDICAL.

A. *General*, as in plethoras, retentions, fevers, inflammations, fluxes, hæmorrhages, eruptions, debilities, palsies.

B. *Local*, as in the various idiopathic diseases of the skin.

II. CHIRURGICAL.

A. *Curative*, as in sprains, contusions, tumors, burns, scalds, ulcers, primary and secondary fractures, simple and compound; wounds by gunshot, laceration, puncture, cutting.

DISLOCATIONS AND OTHER ACCIDENTS.

B. *Operative*, as in trepanning, tapping, aneurism, lithotomy, amputation, hernia, tumor, abscess, and smaller operations, with their dressings.

III. MIXED, OR MEDICO CHIRURGICAL.

Accidents by drowning, suffocation, lightning, concussion, syphilis, stroke of the sun, freezing, poisoning, and other accidents.

Infirmaries, in the sense in which the word is now used, are the establishments for invalids, and incurables. The usage of our national government has been, and it seems to be the preferable one, to grant pensions to invalids, according to their degrees of disability, and with these, in addition to their other resources, to enable them to provide for themselves in the best way they can. These have been called charities, hospitals, and by some other names.

The surgeon-general, in offering to the commander in chief this sketch of the affairs belonging to the hospital department, manifests his promptness and obedience, as well as his zeal for the good of the service. He relies on the constituted authorities for the assignment of a suitable rank, and for the facilities to which his situation, like the other branches of the general staff, seems to have a just claim.

All which is respectfully submitted.

SAMUEL L. MITCHILL, *Surgeon-Gen.*

To His Ex. DE WITT CLINTON,
Governor of New-York.

A DISSERTATION *on the* COLD PRACTICE, *in* FEBRILE DISEASES. *By* Dr. VINE UTLEY, *Fellow of the Connecticut Medical Society, &c. Read before the Annual Convention of* 1818.

WITH pleasure we find that the orator of the day has, by perseverance and observation, enabled himself to establish very correct principles, the use of which, if not universally applicable in practice, is, at least, eminently beneficial; and in many instances, quite *therapeutical.*

"If, in the evolutions of healthy, or morbid functions, we are exposed to a superabundance of caloric; by the application of cold water, both externally and internally, we can get rid of the excess of it at once, and restore the equilibrium.

"The above state is, in a general manner, *a sensitive and irritable type.* Affusion of water at 70° or 80° temperature, with a current of cold air, will debilitate the system; in other words, reduce, in a short time, the temperature of the blood to the healthy standard of 98°. This affusion will obviously carry off, by evaporation, the superfluous caloric.

"If the fever is of the *sensitive*, but *irritative type*, and the degree of heat stands below 98°, affusion, or aspersion of cold water, creates an irritation, which, with an increase of sensitive powers, causes a reaction in and from the system to the surface of the body, and a greater action of circulation, which, of course, elicits more heat by respiration, and again replaces the natural standard."

The author illustrates these natural effects by the authority of Dr. DARWIN, who says, that "by heating the animal body above the natural degree, febrifuges will have greater effect; on the other hand, if the heat of the body is below that of health, we reduce it still lower, accumulation of sensorial powers will succeed; and then a less degree of diminished stimulus may restore the equilibrium of heat, or, as some authors term it, reaction will take place."

The author is not unaware of some difficulties in this

management, and he satisfactorily provides for them. In asthenic diseases, with weak pulse, and cold surface, cold affusion may perchance extinguish even the power of *reaction*. Here he calls forth the judgment and skill of experience, the help of a thermometer and wholesome aliment, which upholds our very existence.

The first is necessary, and absolutely so, in every branch of clinical practice; if it daily falls short to our observation in ordinary, or simple cases, it is owing to want of judgment or of experience; let them exist even in an *unlettered* physician, and the practice will warrant the theory.

The second precautionary means of Dr. V. Utley, is the help of Fahrenheit's thermometer, portable and fit to be put in the mouth, under the tongue, or in any part of the body, where the existing standard can best be discovered, or estimated at any degree which would not justify the experiment.

The third caution is that of wholesome food, and is admirably adapted in such cases. These means besides, admit a gradual application, and an observing eye; they seldom will fail, with the ordinary degree of attention which is given to writing a prescription. Better to estimate the idea of danger which many people may conceive, or apprehend from these applications, the author very properly asks, whether cold water affused at the 70th or 80th degree of temperature, can make a worse contrast than that of getting out of a warm bed during winter, at a temperature below zero, as he has seen and experienced?

If the pulse beats too quick, even after the first affusion of cold water, as it has been seen to come up to 120 beats in a minute, experience has proved to the author that continuation of the remedy would eventually succeed. "Tremendous seas will continue to rage, for a long time, even after the cause of the tempest has ceased."

The author also gives his own experimental testimony, that when raised above the natural standard of heat and pulsation, and when he felt much depressed in mind and body, should he bathe in cold water by a degree of 80° or 90°, he would soon, or in eight or ten minutes, reduce

his pulse to 70°, and have an agreeable train of ideas. Contrary effects were experienced by him, when below the healthy standard; he was then depressed in spirits; he noticed a loss of memory, confused ideas, and felt very weak.

In this genuine American production, we are happy to meet as an ultimate authority of the principles therein adopted, that of HIPPOCRATES; alas! too often neglected, we apprehend, among those of our countrymen who are too fond of fashionable theories. He justly observes, that HIPPOCRATES, less informed than we are of physical laws, would remedy the excessive and mordicant heat on certain parts of the body, by applying to them linen, soaked in cold water. He drew blood, and administered cold drinks.

Impressive evidences of the salutary effects of cold applications can be derived from various sources. The savages of Nootka Sound are addicted to the practice of bathing in cold water during summer and winter, to keep themselves exempt from febrile diseases. (*Jewitt's Captivity.*)

Dr. U. has known many instances of accidental immersions of sick persons in cold water during the paroxism of violent fever and delirium, or by drinking large quantities of the same, or by exposing their naked bodies to cold air in their flight or elopement from confinement, and who were unexpectedly cured. There is no foundation, therefore, to an unreasonable prejudice against the application of cold in febrile diseases, but what experienced physicians can bear evidence against.

This communication of Dr. VINE UTLEY is supported by detailed cases of his successful application of cold water, and of currents of cold air. In several of them, however, prudence, and circumstances of protraction of disease, had so much obliged him to apply ordinary remedies, that in several instances the cold practice might be judged by many, rather auxiliary, than principal. We would, therefore, depend for illustration of the subject on two of them only; one of *inflammatory*, the other of *maniacal* fever, in which he proves that cold affusions have manifestly been successful.

1. *June* 23, 1817. He was called to a young lady of

Waterford, 18 years of age. She had exposed herself, after a fatiguing exercise during a warm day, to a cool ambient moisture, on a damp ground, and under the shade of a tree, merely to rest herself. Before next morning, she was taken with pain in all her joints, soreness of her flesh, and with great chills. She was found in the morning with a pulse of 120, yet full. She groaned at every respiration. A general spasmodic and painful state all over the system, a flush in the face, and a great prostration, indicated danger. This state was timely relieved by bleeding, and other antiphlogistic remedies. On the third day, the pulse was the same, the surface of the body hot and dry; the heat of the system, by thermometrical test, was found to be 100°; but she had a pain on her left side, a dry cough, irregular flushes on the face, she could not expectorate, and was groaning at every breath. Another bleeding was tried, with calomel and antimonials; yet, on the fourth day, the fever was not abated, and her state had become very alarming. It was now discovered, that a high degree of inflammation was determined on the left lung; she had there an extraordinary pain, and a dry cough; by the least motion she would faint; and any thing taken into the stomach was rejected. Life and death were now levelled on the beam of a scale.

The temperature of her body, and her pulse having not been altered, although by bleeding the last had become softer, I ordered her to be taken out of her bed and sat in a chair, with a loose gown. She fainted, but soon revived by the application of water; it was at the temperature of 80°, and 20° below the heat of the system, and was poured, by affusion, over the whole body, during 15 minutes.

When laid in bed, all her alarming symptoms became altered; the pulse had fallen from 120 to 100, and the pain on her side, and of her head, were abated; her deathlike groanings and hard cough ceased; and she felt pleasantly cool all over. Some light food in warm tea being offered, she took it with relish. Seven hours after the first affusion with water, some return of fever, and pain on the side, suggested the propriety of repeating the remedy, by spunging the body with water at 80°.

and admitting a cool current of air over it, while lying on a straw bed. On the 5th and 6th day, the pulse rising again, and the pain in the side appearing fixed, it was thought expedient to bleed her several times, and successively to apply cold affusions. After a quarter of lunation, a critical resolution of the fever took place, at last, leaving her without fever or pain, and the pulse at 70. Here the author judiciously remarks, that as soon as restored, she was able to walk across the room, and had preserved so much of that natural excitability, which by the violence of the fever would have been exhausted in another person; for, an exactly similar case, in which the same remedial means had been resorted to, (except the cold affusion) had proved fatal. Her convalescence was also uninterrupted and rapid, requiring no other remedy but from 10 to 15 drops of saturated tincture of digitalis, twice a day, and some tonics, to encourage her appetite.

Among thirteen cases of maniacal fever, attended with violent insanity, and in which Dr. U. has successfully resorted to cold affusion on the head, he selects the following:

J. W., of Waterford, 40 years of age, had been many days raving with phrenzy; he had refused food and drink during 24 hours. Pulsation at the wrist had ceased, and he was cold all over; the pupil of the eyes much dilated, and the same as in the last dying stage of a typhus fever. He laid half naked upon the floor, frothing at the mouth, as if attacked with canine madness. Four men sat on each side of him, ready to seize him by the arm, when he attempted to injure himself. He exhibited a frightful appearance, to a large collection of people who were assembled in the same room. His wife and children stood at a distance, trembling with fear, frantic with grief, and dared not approach him.

Dr. U. directed firstly, affusion of water on the head, at the temperature of 100°, which was continued an hour or two; pulsation at the wrist was restored, and the pupil contracted to nearly the natural size, but without any sign of reason returning. Several hours after, water directly from a well, at 60° Fahrenheit, was copiously poured on his head, and in two hours brought his natu-

ral association of ideas, and he consented to take some food in a liquid form, and finally recovered his reason. He was afterwards submitted to a specific treatment for a hepatic disease, which had evidently been the remote cause of this attack.

Dr. UTLEY appears, in the course of his cold practice, to have used much precaution to avoid too great a contrast between the temperature of the body and that of the water; because too great or rapid abstraction of heat from the system might prove fatal, especially as the naked body must always be exposed some moments after the necessary ablutions. He also invites his fellow practitioners to ascertain by experiments, whether each kind of febrile disease might not be reducible to a proportionate and specific difference of temperature, as to be more conveniently known in practice?

He is so sanguine in the utility of this remedy, that he looks forward to the time when an *emetic* or a *cathartic*, with simple cold or warm water, and a milk diet, will be the only principal remedies wanted in the pernicious fevers that affect mankind! We can but assent to the declaration of Dr. UTLEY, "that very little can be added on the subject he has perseveringly investigated, after the extensive collection of Reports by Dr. JAMES CURRIE of Liverpool, on the effect of cold and warm water." However learned and instructive that work may be, we will, at present, give our author an acknowledgment of due praise for his experimental industry and practical observations. These are always precious in medicine: with them we do better than with imaginary improvements, that are only modelled upon the tenets of old schools; every one of these retard progress in our science, so many years back, more than if the medical branch of philosophy was left to natural endeavours and good sense: many modern authors are the cause of our being incessantly obliged to contend against ill conceived notions.

1. The practice of cold water is a general remedy with Dr. CURRIE; but Dr. U. has confined it to *febrile diseases.*

2. The former founds it upon the shock of contrasting temperatures; the latter proportions it to the abstrac-

tion of heat systematically, and to stimulus effected on the sensorium and nervous system.

3. His practice is cautious, and confined to those diseases that are characterized by a general and uniform disorder of the constitution; while Dr. CURRIE erroneously applies it to what he calls "*contagious fevers.*"

4. Dr. CURRIE derives his successful applications from ship, hospital, manufactory, prison, and camp fevers, the various characters of which forbid such application among us.

5. The practical principles of CURRIE are not sufficiently explained, nor safely applicable to one, or many febrile disorders; while we can trust more intelligibly to Dr UTLEY's practice and recommendations.

6. Dr. UTLEY has first proved the beneficial effects of the cold practice in this country, where a more variable climate, and strong alimentary excitement, might render it very doubtful.

From these motives and circumstances, we can, without any disparagement to the fame of the European learned writer, give a proper respect to the American observer, and abide by his practical encouragements and well ascertained observations.

REVIEW.

A SYSTEM *of* PRACTICAL NOSOLOGY; *to which is prefixed, a Synopsis of the Systems of Sauvages, Linnæus, Vogel, Sagar, Macbride, Cullen, Darwin, Crichton, Pinel, Parr, Swediaur, and Young; with References to the best Authors on each Disease. By* DAVID HOSACK, M. D. *Professor of the Theory and Practice of Physic, &c. in the Medical College of New-York.* New-York, C. S. VAN WINKLE, 1818, 8vo. pp. 306.

THE following were the words of the immortal RUSH, when speaking of fevers.*

"A disease which so frequently changes its form and place, should never have been designated like plants and minerals by unchangeable characters. The pulmonary consumption is sometimes transformed into head-ache, rheumatism, diarrhœa, and mania, in two or three months, or the same number of weeks. The bilious fever often appears in the same person in the form of a colic, dysentery, inflammation of the liver, lungs, and brain, in the course of five or six days. The hypochondriasis and the hysteria seldom fail to exchange their symptoms twice in the four and twenty hours. Phrenitis, gastritis, enteritis, nephritis, and rheumatism, all appear in the gout and yellow fever. Much mischief has been done by nosological arrangement of diseases. They erect imaginary boundaries between things which are of a homogeneous nature. They degrade the human understanding by substituting simple perceptions to its most dignified operations in judgment and reasoning. They gratify indolence in a physician, by fixing his attention upon the name of a disease, and thereby leading him to neglect the varying state of the system.

"By the rejection of the artificial arrangement of diseases, the road to knowledge in medicine will be short-

* Medical Inquiries, vol. iii. p. 38

ened, as a child would learn to read and write by the help of the Roman alphabet, instead of Chinese characters, &c."*

It was with such authority, and under the dictates of the same doctrine, that we undertook some years ago to review a nosological synopsis, written in Latin, by J. B. DAVIDGE, Professor of the Institutes of Medicine in Baltimore, (Vol. 2. Med. Rep. N. S. p. 360,) and we then took the liberty of representing it as very little calculated to promote medical science, or to assist its Tyrones in the acquirement of its legitimate principles.

Let us be permitted, however, to explain, that we did not refute the system without argument, nor did we oppose it as sectarians in philosophy, with the prejudice of one school against another, nor under the authority *atque verba magistri.* Nay, we do hold in great veneration those medical philosophers who first resorted to *nosological systems* to embody their extensive and learned medical researches. Their works have added much to the history of diseases, and were the means of elucidating doctrinal precepts and practical rules. Sauvages. Vogel, Macbride, Sagar, Cullen, and Pinel, were not nosological synopsists only. "Their advocates," said Dr. Rush, "will not be offended by our observations; their immense stock of reputation will enable them to sustain the loss of their nosologies, without being impoverished by it." We are enlisted against the doctrinal modes of encompassing the noble science of medicine by nosological synopses, which exclusively rest upon private authority, and are disconnected from any valuable treatise on human diseases. The great number of those tabular arrangements, or systematic classifications of diseases, already prove a mutability, or uncertainty of opinions, which we aver to be inconsistent and offensive in medicine. They throw us back also into a region of non-entities of Arabic or Greek denominations,

* We have often wondered why the celebrated John Brown of Edinburgh, did not preface his ingenious theory of human diseases with a nosological synopsis. No system was better calculated for a tabular and artificial disposition of diseases, than his inverse evolutions of excitement and excitability. He, withall, bore strong testimony against it. *Nosologia delenda:* Nosology must be destroyed! These were the concluding words of his first Latin edition, 1780.

rarely used by teachers themselves, and imparting feeble and false ideas, instead of the substance and reality. The advantages or benefit of nomenclatures as acknowledged for permanent substances, and compounds in nature, and also for its uniform production, is misapplied, or lost in abstract or theoretical expositions of laws of animal life, of their future and accidental changes. They are preconceived notions, as if they would be derived from synoptical classifications of mental perceptions, and of the organic or vital powers of a healthy man! If a nomenclaturist could possess such a universal history of human diseases, as they have appeared in all parts of the world, and if all the facts belonging thereto were by him arranged into classes, orders, genera, and species, there would still be an argument against this mode of transmitting knowledge, merely from *appearances*, which in human diseases are not a criterion between causes and effects; and what shade of truth will then remain in a nosological nomenclature, predicated upon the form and operation of diseases, as they will be at a future time, and as they will then call for his judgment and decision?

To the importance of this subject, to its exceptionable adoption as a system of medical instruction in our seminaries, and contrary to doctrines anciently established by the Medical Repository, we owe a more explicit developement of our argument.

Had the authority of Cullen, as a nosologist, been properly weighed, very few men, we believe, would have undertaken to improve upon his system. Nor could any one be much encouraged to become either original or useful in the attempt. He had doubted not only of his own success, but of many who would do the like after him. "*Difficile quidem erit, hanc rem protinus perfectam reddere, nec, ut opinor, nisi tentaminibus repetitis fieri potest.*" (Preface, xi.)

Cullen also was convinced, that "division of diseases by genera and orders, was not in nature, and must be fallacious: that there existed only species of them." "*A natura vero, species solum datæ sunt; et generum constitutio, est mentis humanae excogitatio, quæ fallax et incerta erit;*" that "the species of diseases were

so numerous and so extensive for the powers of memory, that to assemble them all, was yet a great desideratum to accomplish." (Preface, xii.)

"That although the *characteristic* signs, proposed by nosologists to define diseases, were defective and erroneous, he would attempt to improve upon them. *Quamvis morborum characteres hactenus propositi saepe erronei, saepe deficientes sunt, &c.*" In fact, Cullen thought that all the nosological synopses before him, and which he had the candour to affix to his own work, were defective; that it was possible, and was his duty to make them better, and useful to practice, for he had in his time still imbibed that prevailing opinion of the necessity of a good *nosological system*, which it would be as absurd to deny as the very existence of the science of medicine itself. "*Nam si quis hoc negaverit, idem fecerit, ac si nullam esse artem medicam dixisset.*" (Preface, xv.)

Should the present author have failed, (not in arranging a new synopsis,) but in establishing a useful nosological synopsis better than that of his admired model, we certainly may be allowed to remark, that it was not for want of proper or timely caution from an eminent and venerable master. To prove that he has not succeeded, is the remainder of our task.

We suspect, after all, that he evidently felt the force of these remarks. For the following we noticed in the second page of his preface. "In the details of the synopsis now submitted, it will be perceived that I have been more solicitous to convey a distinct enumeration of the *characteristic* or *pathognomonic* symptoms of diseases, and to form those associations which are connected with their cure, than to observe the rigid rules enacted by the naturalists in the formation of genera and species." Immediately after, Dr. Hosack brings the authority of Dr. Young, whose nosological synopsis is the twelfth in his collection, in the following words: "We must not expect the same rigid accuracy in medicine that may be obtained in some of the departments of natural history, since, in fact, many of the distinctions which are required in a nosological method, are rather established

for the sake of *practical convenience*, than strongly and immutably characterized by nature."

This is an authority bearing directly upon the support of a *second advantage* to be derived from a nosological method.

A third one is derived from Dr. Good's, with whom we are not much acquainted. He says, "that the distinctive signs of diseases, are as constant and determinate as many of the distinctive signs that occur in zoology or botany; and so complicated is the animal machinery, so perpetually alterable, and altered by habit, climate, idiosyncrasy, and the many accidental circumstances by which life is diversified, that the *general rule must admit a variety of exceptions*, and is here, perhaps, more than any where else, established by such exceptions." This is not altogether a very clear argument, but we will fairly and honourably take it in the most probable meaning; which we believe is, that a nomenclature of human diseases is necessarily faulty; that exceptions must be made; and that their frequent occurrences make them absolutely necessary.

Nosology, therefore, according to the present author, firstly determines the pathognomonic and characteristic signs. Secondly, is a practical convenience. Thirdly, it indicates rules for exceptions.

I. In a general point of view, it may be affirmed, that the knowledge of pathognomonic and characteristic symptoms of diseases, although it could be correctly derived from nosological synopses in the view of directing the mind to their nature and treatment, would still remain insufficient and erroneous, in as much as the form and operation of diseases, although uniform in various subjects, may eventually proceed from totally different causes; while, by the same natural agency, various and opposite kinds of complaints may be produced. *Intermitting fevers*, for instance, (fever and ague,) are not exclusively generated by marsh miasmata: they may proceed also, firstly, from visceral or organic diseases; such as the schirrus of the spleen, or other glands: secondly, from debilitating causes; as want of food, or by unwholesome aliments: thirdly, from nervous irritations, excited by worms or offensive matter in the alimen-

tary canal; by too great a quantity of milk in the breast of a young woman, by passions, grief, terror, and other moral causes; and by unhealthy wounds, ulcers, and decay of bones. Of this last cause, we have seen an obstinate double tertian fever for years, which yielded to no remedy, and was cured at last by the extraction of five or six decayed teeth. Again; is the influence of marsh miasmata the cause of intermitting fevers only? We know that it generates, firstly, the *tabes mesenterica* (le carreau) of children: secondly, the *goitre* in many countries: thirdly, the *chlorosis* of young persons: fourthly, *convulsions* in infants: fifthly, *melancholia*, and various sorts of mental derangement, in certain places and seasons of the year: lastly, *spotted*, *petechial*, *malignant*, and *pestilential* fevers. In this very great uncertainty of the real cause of diseases, which is so often concealed, and the disclosure of which requires many comparative or experimental results, can a nosological synopsis be useful to a physician, while medical philosophy has already cautioned him against limited knowledge, and invited him to seek the truth, in the extensive range of the laws of creation, and of their effects in all the departments of nature?

This is not all; we must show that those very pathognomonic and characteristic symptoms, can seldom, or but partially, be at the disposal of the nosologist. Many are the complaints which have a *pathognomonic* symptom: the jaundice relates to the liver; urine issuing at the perinæum, proves a rupture or an opening of the urethra; pus raised with, or by a cough, designates phthisis pulmonalis; and water collected in the abdomen certainly indicates dropsy. Who would, however, exclusively trust to those *pathognomonic symptoms*, except a very unsafe judge? For, jaundice may take place without a disease of the liver, and be temporary only; a fluid similar to urine, or urine itself, may ooze from the bladder or urethra without rupture or ulceration, by the fact only of the morbidly dilated *lacunæ* in cases of stricture; purulent expectoration is long continued after the rupture of a vomica; water collected in the abdomen, may have taken place from a ruptured bladder, &c.

Again; pathognomonic symptoms are rare in general. They are always so much wanted, to define a disease, that the science of medicine has been, from that circumstance, and is daily, reproached by many sceptics with erroneous *diagnostics*, and accused of giving false *prognostics;* by others, it is held up as a conjectural science.

The synoptical frame which is proposed, cannot, on the other hand, offer distinctive signs enough, to encompass every disease, by arrangement of classes, orders, genera, and species, unless with the help of arbitrary qualities, or attributes, which are either questionable or erroneous; hence the subject is greatly confused.

From the synopsis before us, let us take as an instance the disease of dropsy, (*hydrops.*)

1. Class—Cachexiæ; *in the opinion of the author.*
2. Order—*Intumescentiæ aquosæ. Pathog. Sympt.*
3. Genus—*According to the seat of the disease.*
4. Species—In five genera, none; in four genera, *disposed according to the opinion of the writer.*

We have it here plainly shown, that the characteristic symptom has enabled the synopsist to form only the *order* and the *genus;* but that the *class* and the *species* of dropsies, are attributes made up from his opinion and judgment. Should these be questionable, the subject will thereby be confused, and a synopsis will be a vehicle of a controversy instead of being a safe guide; this inference is justifiable from the definition of this class *cachexiæ*: "diseases of depraved habit, especially manifested in the absorbing, circulating, and secreting systems, &c."

Professor H. is certainly too well informed in medicine, to admit as characteristic such an undefined origin, "depraved habit," as a cause of dropsical diseases, which are so generally known to be symptomatic of visceral or organic obstruction of circulation. A schirrous liver, for instance, will certainly be the cause of an ascites.

Pathognomonic symptoms are not only rare, but frequently very tardy; occurring when the disease has run through several stages, and kept the attentive phy-

sician in suspense, who has varied his remedial practice according to the most visible exigencies. How, then, could a nosological characteristic, even accurately defined, be of any use, when the fate of the patient is decided; by the black vomit, for instance, in the yellow fever; by the bubo, or carbuncle, in the plague; and by affusion in the thorax from a ruptured vomica, &c.?

Nosologists may, in support of their system, contend, that besides pathognomonic symptoms which may not occur, there are others which become characteristic by their *simultaneous* existence, and prove thereby the propriety of a synoptical arrangement. Thus, an incessant vomiting, an unquenchable thirst, with a great degree of fever, would characterise *gastritis*. We assent to the demonstrative evidence of the nature of diseases; that can be derived from the observation of simultaneous signs and symptoms on the human frame; and this is one of the principal means whereon medical skill and authority are established; but, if certain diseases can be distinctively defined in their march, form, and mode of attack, by the concurrence of various characteristic symptoms, it does not follow that this is the case in a still greater number of them, and that for every one, a tabular arrangement will contain equally demonstrative signs and forms. Firstly; because these concurring symptoms are alterable, according to age, sex, constitution, season, and countries; hence, habitual experience could rarely point out two cases of the same disease, marked by the same occurrence, and perfectly alike. Secondly; in numerous instances, the symptoms we allude to, are successively formed at various periods of the complaint, and each of these of different nature and character. The rubeola, the small-pox, the scarlatina, erysipelas, the spotted and petechial malignant fevers, change, two or three times, those constitutive marks by which they are classed in nosology, which proves to be of no use, before each disease is perfectly evolved. Thirdly; certain constitutional agencies (in epidemics especially) are known and may be observed, that can suddenly change the type of a prevailing affection from a sthenic or inflammatory na-

ture to that of an asthenic or typhoid state, and thereby require opposite modes of treatment.

But if a nosological synopsis is not a safe guide to convey pathognomonic or characteristic symptoms of diseases, and to form associations connected with their cure, it is much less to be viewed and adopted as a *practical convenience.*

II. Could we for once only, on a serious subject, be permitted to smile, we would, better to illustrate our meaning of it, advert to a dignified character in a French play, who could not consent to dispense with that sort of convenient vehicle called a *sedan chair*, although it had no bottom for the feet to rest upon; but before he had reached the end of his journey, his hanging feet and toes were so woefully broken and bruised, that he thought it was expedient to lay the convenient vehicle aside; and thus are all possible and *bottomless* systems of nosology laid aside. The great number of them, (no less than twenty we know,) were every one contrived, no doubt, to correct, if possible, the defects of the former, which convinces us at any rate, that all but the last are judged and rejected. The author before us has not, however, explained what kind of a practical convenience a synopsis could afford. It may, no doubt, be of great use to a teacher of the theory and practice of medicine, who wishes a tabular arrangement of all the subjects of his lectures; but that it is not, nor can be convenient to practitioners, appears, firstly, from the general disregard of it by physicians in the discharge of their professional responsibility, not only in private practice, but also in consultation, in testimonial certification, in jurisdictional inquiries for decisions of cases connected with human diseases, or public crimes, and even in examination of candidates for legal license to practice, or for the conferring of academic honours; we have never known any authorised professorship, or censorship, that could be permitted to exact from candidates the accurate knowledge of a medical nomenclature, as it must be required in botany, or any other branch of natural history. The reason is obvious; firstly, no permanent authority could prevent any body adopting a synopsis different from another. Secondly; the con-

fusion of languages arising from the different technical words, would be much similar to that which, by the visitation of God, was inflicted on the people who pretended to erect, and raise in Babel, a tower as high as the firmament; and, lastly, if *practical conveniency* in nosology is better to assist the mind and attention of professional men, and more surely guard them against errors and mistakes in remedial indications, why is it, in the name of reason, that every new synopsist has found fault with the former?

III. The call of nosologists for *exceptions* in their synopses, we declare *unmerited* and *inadmissible*. *Exceptio probat regulam*, said the old scholastics; and the proposition is true in logic equally as in mathematics. The precession of the equinoxes is an exception in the planetary system, and rather proves the power of its invariable laws, than invalidates it. When Linnæus had accomplished his admirable classification of the vegetable kingdom, he found some plants which he could neither introduce in any of his 24 classes, nor make a 25th of them; he left them by themselves, under the name of *palmæ;* and yet, with this exception, his nomenclature is the best founded on the laws of nature. All rules of moral and political justice, have also their exceptions; those of the fine arts are not without them; the outlines in painting cannot all be lines of beauty; poetry admits verses without rhyme, and without metre; music has also its dissonances; but the vague, uncertain, mutable, and arbitrary rules of nosology, seem not consistently entitled to exceptions; they are already exceptionable enough. This broad assertion, however, has no reference to the work before us, which, as a performance of the kind, we have not undertaken to criticise; but only wished to bring out from it evidences of the many defects which are inseparable from nosological systems. As yet, we have perused the preface, and several genera of the class of *cachexiæ*. This, however, has already been noticed by a late severe reviewer of the whole work, as the best class, and most correct in its divisions. We will show, therefore, how exceptionable it is in the same.

We find in it, as the xix genus, *lithiasis*, embracing

"all cases of preternatural quantity of earthy matter deposited in any part of the body." The name of this affection has been exclusively used in medicine and surgery to designate the stone, or calculus, in the urinary bladder and kidneys, from that particular acid the *lithic*, which connects their component parts. The French have called it *uric acid*. A few chymists have found it partially existing in the concretions of the joints of gouty people. Those of various parts of the human system are proved to be phosphates, carbonates, or tartrites of lime, except in the urinary bladder. *Lithiasis* should not be made a generic name of all kinds of earthy concretions. This affection is also made a genus of the class *cachexiæ*, or diseases of "*depraved habit.*" We will not contend against the undefined acception thus given to the cause of earthy concretions of the heart, blood vessels, and others; but it does not apply to the stone or calculus of the urinary bladder, which, from certain organic defects or accidents, may eventually be formed in subjects of the most perfect constitution; from local diseases also of the prostrate gland. Strictures may promote the deposition of earthy matter. If the least insoluble substance was introduced into the bladder, it would immediately become the nucleus of a stone. In fine, as this terrible malady occurs oftener in certain places and countries than in others, owing to the qualities of water; oftener to the very young and old, and from diseases of the urinary organs; and as no bad habit could yet be substantiated that produces it, we think that it has no connection at all with the *cachexii morbi*.

The xxi genus of the same class we find still more exceptionable. Syphilis, a contagious disease, &c. classed with diseases of "*depraved habit!*" But there was no depraved habit in the system that could excite it before it was contracted! A specific contagion constituting a disorder cannot be called a *habit*. Again; a "*depraved habit*" is a certain morbid state of the system generated by irregularities in the laws of animal economy, which, when happily corrected, may restore natural health; while syphilis, in every case, requires no remedy for the habit, but a proper use of its specific. Also, the genera of diseases of depraved habit, are every one of

their own kind, and are always attended with certain limited effects; but those of syphilis are so various and multiplied, as to constitute an extensive range of internal and external complaints. Again; syphilis, in the first period of its existence, does not contaminate the system; it exists locally, and cannot, therefore, be classed with diseases of depraved habit. These, and many more points of view of the subject, will sufficiently prove how many erroneous inferences and associations can exist in nosological systems, and that no rule can hold good in them to stand for the right and privilege of *exceptions*.

Here we terminate our criticism and our objections against nosology as a synopsis or a nomenclature. It was introduced in medical philosophy by Platerus, in the 16th century; recommended by Sydenham; and first accomplished by Sauvages, who added to it an extensive history of human diseases. The merit of his writings has much contributed to magnify the importance of nosological classifications, and encouraged several attempts to improve them. Many celebrated writers, who have successively performed the task again as a method of arrangement of their own valuable writings, have, nevertheless, concurred, by their new nosological system, to prove the versatility and mutability of a method which has no fixed principle, nor authoritative rules, and no uniform objects. A greater number of medical writers of less note, from all nations, have, to this day, still more confirmed the truth of our remarks, by contributing a fresh and still different synopsis, the number of which, perhaps, surpasses that of the civilized nations in the world; for we know four or five from France, the same number from England, and already two in America. We think it self-evident, therefore, that nosology should not be included among the branches of the noble science of medicine, unless it embraces the history of the diseases, of their symptoms, as are taught by pathology. Nosology, as a synoptical classification, is at best to be compared to the superfluous ornaments added to a Gothic structure; as entirely disconnected from medical philosophy, as the latter are from architecture.

With regret, we have seen a severe criticism of the

book before us; we say with regret, because the writer offers two extremes in his review; that of finding "errors and inaccuracies, faulty or exuberant definitions, neglect of local diseases, and of symptoms, &c.;" and yet, he concludes after all, that "Hosack's practical nosology has the great merit of proposing an unexceptionable classification," and to be a "most admirable outline." (p. 114.)

In this contradictory exposition, we are inclined to believe that all his causes of reprehension are less imputable to the author, (whose talents and medical acquirements are not to be doubted,) than to the fallacious systems of practical nosology, every one of which has, to this day, been blotted with so many errors and deficiencies.

The *Recorder*, who highly estimates the importance of nosology, says, that "by it, it is not intended to arrange diseases with rigid accuracy, as in classification of objects immutable in nature; but rather for practical convenience in associating analogous diseases which require similar treatment, and distinguishing from each other those which admit modifications, &c.; that this being the case, of what significance are objections against the defects of nosology?" (p. 102.) In this position, therefore, the Recorder, who admires so much the classification and outline of this synopsis, had no business to find fault with it.

Some of his concluding remarks, we have very good reason to approve and to insert. "There are also manifest improprieties in the list of authors on each disease. The frequent references to inaugural dissertations, (some of which contain only an allusion to the diseases under which they are cited,) the enumeration of fugitive papers and ephemeral magazines, and the egotism displayed in the numerous and almost continual references to the author's own writings, as standard works, cannot fail to displease and disgust. They form blots upon the work of no small magnitude."

Well may the *Recorder* thus complain and censure! But what would any one say, with the liberal feelings of scientific and professional men, with a due regard to more than two hundred respectable medical writers and

contributors in the Medical Repository, now reaching the 20th volume, with patronage and applause; who would search and not find in Hosack's paragraphic lists of a multitude of foreign authors and pamphlets, a single reference to that vast collection of interesting medical inquiries, authoritative essays, and facts, which are thus *nosologically* thrown off and excluded from his *classes* and *genera?*

MANUEL MEDICO-LEGAL *des* POISONS, *introduit dans l'estomac, et des moyens thérapeutiques qui leur conviennent. Paris*, 1817. 384 pages, in 8vo.

MEDICO LEGAL MANUAL *of* POISONS, *introduced into the stomach, and of their remedies, &c. By* C. A. H. A. BERTRAND, M. D. *of Pont du Château, National Associate of the Medical Society of Paris, of Lyons, &c.*

IT is neither with a view of criticism nor censure, that we present this work to our readers; but we wish to offer them what we think most immediately applicable to professional utility; and we have not this long time seen a more practically interesting book. We hope that it may be literally translated. At present, we question much whether it surpasses or supercedes the toxicology of Orfila.

There is this difference between the two authors; that the first is more extensive and scientific; and this is rendered more easy and intelligible for use, and for legal purposes; this is, therefore, a legal book; nothing is given in it for the sake of controversy; it is all for knowledge and humanity. It appears that the two authors have long been known to have assumed the same task; and the present takes his date in the general records of the faculty as far back as the year 1808; but the race of Orfila has been more rapid. He printed his work, we believe, one or two years sooner. The two authors now meet together; nor is Bertrand dismayed by the splendid reputation of Orfila; and several points of controversial matters between them will,

we hope, be liberally settled without any prejudice to science or humanity. But the last has classed, arranged, and decided every thing independently, within the range of his inquiries. Of his merit, good style, perspicuity, and good language, this work will always be a decisive demonstration, and not the less dignified, as priority of age and experience is on the side of this author.

Faithful to the purpose of usefulness in our editorial task, we have thought to give a compendium of the first part of the work in this number, and we engage not to let it alone till we have diffused from it into this volume, all that we think to be a valuable addition to the practical knowledge of medicine.

The book is published under the auspices of one of the presumptive heirs of the crown of France. As a legal authority, it is invested with a sufficient sanction for this country, where great respect is paid in point of legal measures and decisions, to the ruling and responsible power.

The better to encompass this subject, the writer before us, defines and determines upon the poisons which are exclusively received into the stomach, and which are in the French language called *poisons ingérés*. All deleterious substances which may be inhaled by respiration, or absorbed through the cutaneous system, form another extensive range of observations and doctrines, to which the book has not any reference.

The author introduces his subject by observing, that the classification of poisons does not depend on their virulence or venomous qualities, which in many instances are relative to individuals in the animated creation. A small dose of aloes would poison a fox or a dog, while arsenic operates only as a strong cathartic upon the wolf and dog. In our species, the Turk can with impunity use very large doses of opium, and the natives of Laponia can eat freely the tender buds of the *aconitum napellus*, of the *mezereon*, and of an oil extracted from the seeds of the *nicotiana*. Certain poisons swallowed in an empty stomach, would also rapidly put an end to life; but a greater dose of the same, mixed with aliments, has often proved harmless. Voluntary poisonings have been remarked to be more effectual than those

which accidentally take place. Nor would it answer any correct view of the subject, to class poisons by their specific nature, as *mineral*, *vegetable*, or *animal* substances; their ultimate and various effects being so often similar in every pathological view of the subject. *The first class*, therefore, of poisons, as marked by Mons. Bertrand, should be that of substances which poison by corrosion or *lesion* of the parts they are in contact with. This class will, therefore, comprise all concentrated mineral acids, caustic alkalies, subalkaline earths, various salts, or metallic oxides, as acting by corrosion of the internal coats of the stomach, and combining with decomposed animal matter.

The second class comprises such metallic salts and oxides, cantharides, and all acrid irritating vegetable substances, which are calculated to augment the irritability of the stomach or of the system.

The third class consists of poisons distinctively marked by the power they have to impair from the stomach, and by sympathy, all the functions of the brain, spinal marrow, and respiration, and to extinguish them rapidly.

This simple arrangement of all possible *ingested* poisons leads us naturally to some doctrinal principles, or indications, by which we could arrest or mitigate their deadly effects. The author is ready to caution us against antidotes, *bezoardic*, *alexipharmic*, and *alexiteric* remedies. These various subjects might have been the desideratum of old times; but they are not to be accredited in our days, and much less are our hopes of success to be founded on chemical reactive remedies; the stomach is not an alembic. Let it be known, that in any case of poisoning, the most simple remedies, the easiest to be obtained, are at hand; and with farther attention, we can convince ourselves of their efficacy and sufficiency. Of whatever advantage and importance his toxological treatise may be, and which the author satisfactorily explains, we will leave to our readers to judge and appreciate, in this and succeeding numbers, remembering only that this is a didactic work, elementary, and to be estimated only by practical and professional skill. "Gentle reader," said Montaigne, "I do not tell you that I give you *good things;* but I affirm, that I give you

mine, and you must afterwards be the judge of their qualities."

The first class, that of the poisons by corrosion, or by *lesion* of organic tissue, the only one, of which we will at present form this syllabus, is composed of three chapters; the first treats of the poisoning by concentrated mineral acids; the second, of the same by alkalies, earths, or alkaline salts; and the third, by various salts, and metallic oxides. The whole is terminated by two sections, the general, and the therapeutic rules to be attended to, in all the different kinds of poisoning which have been described.

The nitric, sulphuric, muriatic, hyper-oxigenated, nitro-muriatic, phosphoric acids, and others, operate in the human body with the same violence when equally concentrated; but the nitric acid, being oftener resorted to in acts of voluntary poisoning, or accidentally taken, will be the first subject of this inquiry.

As soon as introduced into the stomach, it burns and decomposes the surfaces it is in contact with; the pain is therefore violent, tearing, and fixed; to it are joined eructation of gases, belchings, hiccups, and vomiting of liquid or solid matter in an apparent state of effervescence, with a sour odour, and styptic taste. The abdomen inflates, respiration becomes laborious, and the thirst is excessive; the throat, and the œsophagus, are also particularly affected with a burning sensation; the mouth and lips are tinged yellow, and appear as if they were corroded; a peculiar effect of their contact with nitric acid. The whole habit of the system is in an alarming state of restlesness, chills, and general coldness of the extremities. The countenance is distressed by discoloration, and discomposure of features, bespeaking the most violent pains; by partial contractions of the muscles, and especially of the forehead, completing a horrid sight of what is called *hippocratic* face. These last symptoms are the more important, as in some instances the first local effect in the stomach might be confounded with previous or habitual cramps, or if partial only, it might be owing to a great degree of disorganization of that viscus, at an advanced stage of prostration of the subject.

Fourcroy thought that poisoning by nitric acid would cause the eruption of large pustules on the body, similar to that of small-pox; there is some authority existing of the same, but it is not admitted as a certain symptom, and is perhaps owing to previous circumstances, or derangement of health. We here omit cases related in the original for the illustration of the above symptoms, and we come to the results of the same poisoning, from ptômatopsia, or cadaveric examination. That only which was observed, is that of poisoning by nitric acid.

Should death soon follow poisoning by that acid, the external form is not altered; but the lips will be contracted and yellow tinged; spots of the same colour will be discovered on various parts of the body; from the mouth, also, a fluid of a yellowish colour oozes, and its internal parts, with the teeth, are stained with the like colour. A thick yellow mucus lines the œsophagus; the abdomen is inflated; should not the stomach be perforated, it emits a gas of prussic acid, much like that of bitter almonds; its coats are inflamed and lined with gangrenous and greenish spots; its peritoneal surface will be found adhering here and there; the pylorus is contracted; the duodenum and the lower intestines, besides many alterations, present clots of blood in various points of their internal surfaces. When the stomach is perforated, the openings are round, and thinned in their edges, and flakes of yellow matter may have been effused into the abdomen.

Should death by nitric acid have been long coming on the poisoned subject, the body is much emaciated; organic parts are flabby and dried up; the alimentary canal, and the pylorus, are prodigiously contracted; the internal surface of the stomach is of a red florid hue, from a new formed mucous membrane; if opened by corrosion, it adheres to any adjacent parts. The difference in effects from various kinds of concentrated acids, is to tinge with different colours. The nitric acid by new combinations with animal matter, gives the yellow greenish colour; the sulphuric, makes it black and greasy; and the muriatic, coagulates animal matter, and covers it with a whitish hue; the phosphoric acid has the same, and such effects, which in all the above cases

were the result of various evolutions of oxygen, carbon, and ammonia, with animal matter.

Should the subject be still living, a certitude of the nature of the poison can be obtained by the above discolorations, and by various chemical effects of the fluids, or matter vomited, which will effervesce with alkaline carbonates, and with spirit of turpentine; the last elicits a musk like odour; it converts vegetable blue colour into red; blackens a piece of silver; coagulates the white of an egg; ignites by the help of heat, phosphorus, charcoal, sulphur, &c.

After death, the same results would more or less take place from any fluid carefully collected from the stomach, or from water in which parts are to be washed, and afterwards evaporated.

The presence of *sulphuric* acid in similar circumstances, is ascertained, firstly, by the blackish tinge; secondly, by reddening the tincture of litmus, by giving a heavy, white, and insoluble precipitate, when tested in a solution of carbonate of barytes, of nitrate of silver, of nitrate of mercury, or of acetate of lead; thirdly, by its mixture with pulverised charcoal, which, when heated, takes the oxygen of the sulphuric acid, and leaves the sulphur naked, this disengaging thereby a sulphurous gas, and a carbonic acid gas; fourthly, by a nearly similar effect, if the matter is boiled with mercury.

The *muriatic* acid is demonstrated, firstly, by the white tinge of the parts; secondly, by the light yellow colour it imparts to vegetable blue; thirdly, by the insoluble muriates it forms with the metallic salts of lead and silver; fourthly, by giving a white precipitate from albumen, and a thick coagulum from milk; fifthly, by want of action on the solution of barytic salts, and of lime water; sixthly, by the prompt and white precipitation of nitrate of silver, &c.

The *phosphoric* acid is detected firstly, by its strong taste; secondly, by reddening the tincture of litmus; thirdly, by its glassy appearance after fusion, or evaporation; fourthly, by its garlicky smell; fifthly, by its easy solution in water, which is oleaginous and produces a white insoluble precipitate in lime water and in chemical solutions of barytes and strontian; sixthly, by its

decomposition in a tube of porcelain reddened in a furnace, with hydrogenous gas passed through. In this case, oxygen is abstracted, and phosphorus left, in the dried residuum, of a phosphoric solution, which, when mixed and triturated in a porcelain mortar, the phosphorus will take fire.

Of the effects of this acid on the human body, and of others enumerated, except the nitric and sulphuric, very few instances could be observed; they are equally destructive. But, in as much as accidental poisoning with any one of them may take place, we have noticed their operation on animal matter, and their respective tests.

Messrs. Gay Lussac, and Thenard, while decomposing the fluate of potash, with a view of analysing the fluoric acid itself, discovered what they thought to be the most caustic substance in nature. To give warning only to the toxicologist, this substance is here mentioned as fluoric and boracic acid gas, which these two eminent chymists have named *fluo-borique*.

II. The second chapter of poisoning by corrosion, or *lesion* of organic tissue, comprises *alkalies*, *alkaline earths*, and *alkaline salts*. The following are the caustic alkalies; potash, soda, ammonia. The alkaline earths are lime and barytes. Then we have in form of salts, the carbonate, sulphate, nitrate, and muriate of barytes; which are violent poisons, but not so rapid as the acids, except pure potash, which, by its deliquescency, instantly becomes destructive of animated parts.

When alkalies are swallowed in a certain quantity, the local symptoms are, a burning heat in the mouth, *pharynx*, œsophagus, and stomach, with sharp pains *in epigastrio;* afterwards retchings and vomitings of fluids and matter streaked with blood, violent colics, bloody stools, and a convulsive trembling of the jaws, a symptom very alarming, and occurring in other sorts of poisoning; and there is cauterization, white or black, of all parts which can be seen, and which have been in contact with the caustic. The general symptoms of this kind of poisoning are much similar to those arising from concentrated acids; and besides, anxiety, restlessness, syncope, cold sweats, convulsions, difficulty of respira-

tion, distortion of the face, hiccup, tumefaction of the abdomen, small irregular pulse, and prostration. It imports very little to know by what power or affinity, alkalies, in contact with living parts, decompose them. It suffices to know that potash and soda form with them a kind of thick greasy and black matter; and other alkalies, a white, oily and saponaceous compound. They also affect the nervous system, as they reach the circulating fluids, which being absorbed, soon create inflammation and gangrene.

In cases of this poisoning, the presence of alkalies, or subalkaline earths, is tested and discovered by submitting vomited or collected matters to certain experiments; they impart a green colour to syrup of violets, and to red wine, they are of an acrid burning taste, and much like ley. Sulphuric acid poured on this matter will effervesce and form salts, with different bases; these salts again, after evaporation, may be analysed. Sulphates of potash, of soda, or barytes, have their well known laws and affinities, which we could hardly enumerate in this compendium, but which every chymist must be acquainted with.

III. The third chapter on poisoning *by corrosion, or lesion of organic tissue*, treats of various salts and metallic oxides. The muriate or butter of antimony, the nitrate of silver or lunar caustic, the muriate of mercury or corrosive sublimate, the muriate, and other preparations of arsenic, nitrates and sulphates of mercury, the yellow oxide of mercury or turpith mineral, the red oxide of the same by nitric acid or red precipitate, the æthiops mineral, the fulminating powder, or ammoniacal oxide of silver, the muriate of gold, the muriate of tin, the oxigenated-muriate of potash, the nitrate of potash, the iode, and sulphate of potash, are all compounds, rendered by their high degree of oxigenation highly pernicious and destructive of the organization of the stomach.

An ardent thirst, and a burning heat along the alimentary canal, tearing pains in the epigastric region, varied colours of cauterization on the lips, and in the mouth, flush and paleness of the face, copperish taste on the tongue, teeth set on an edge, fœtid breath, swelling of the gums and salivary glands, copious influx of frothy

spittle, (especially in mercurial poisonings) bleeding from the mouth and nostrils, spasmodic contractions of the fauces, retchings and vomitings of different kinds of matter, hiccup, violent colic, profuse alvine dejections, mostly bloody, meteorism of the abdomen. Such is the doleful sum of symptoms which all at once, or successively, denote this sort of poisoning; to which the observer may add as single, and in general all symptoms or effects, which have been already noticed in cases of other caustic poisonings.

We will not dwell on every one of these chemical compositions, nor enumerate all their affinities and tests, as our extract would then be more minutely scientific than practically useful. We will, however, take four of them, which a rather inconsiderate mode of practice, in our opinion, bring too often in contact with the human body; these are, first, corrosive sublimate, or *deuto muriate of mercury;* second, muriate of gold. Of arsenic, we will treat separately in a subsequent article. The first has often been to our observation either a voluntary or accidental poison, although it has also been medically resorted to, and perhaps injudiciously; we are ready to acknowledge, that in the doses and mixtures that are approved in various prescription books, it can scarcely be proved a dangerous remedy; a circumstance, however, is overlooked, which, as we have witnessed, has rendered it fatal, or at least very prejudicial; it is, that when daily administered without attention to its evacuation in a few days, many doses will be accumulated in the digestive organs, to that proportion or intensity, which suffices to constitute its poisoning operation.

To ascertain its presence in any of the fluids, rejected from, or remaining in the body, we have first, the taste, which is acid, acrid, and caustic; second, the white fumes that evaporate from it in a state of combustion, with a penetrating and choaking effect, and which can mark plates of red copper, iron, and zinc, with white silvery spots by friction; third, the property, also, to tinge the syrup of violets red; fourth, a yellow orange precipitate with lime water, or with a solution of potash or soda; fifth, its white precipitate with an ammoniacal solution, and black precipitate by means of sulphurated

hydrogen. According to Mr. Bostock, a 0,0005 of albumen dropped in a saturated solution of corrosive sublimate, renders it milky, and precipitates white flakes. According to Vogel, a watery solution of sugar produces the same effect; and this white precipitate, like the proto-muriate of mercury, turns black by the intervention of potash, or lime water. We suppress a greater number of complicated tests which are more scientific and curious, than necessary for professional purposes.

Mr. Brodie, so well known by his laborious experiments on poisons, is of opinion, (and I concur in the same.) that corrosive sublimate, by its continued presence in the system, extends its sympathetic influence to the heart, and to the brain; these two vital powers have been found prodigiously altered in various instances of dogs poisoned by it. It is therefore no wonder, that when taken in a dose a little larger than what might be thought harmless, a rapid death should ensue from it. It remains still a desideratum to know what degree of confidence medical authority can give to the protracted use of it as an antisyphilitic remedy!

The muriate of antimony in the matter of vomitings, or in the stomach after death, condensed by evaporation, is detected; first, if it is of a very acrid taste; second, if in contact with air, it takes an oleaginous consistence; third, if the vapour or smoke from combustion on live coals, reddens blue vegetable colours; fourth, if mixed with dried vegetable substances, it converts them into charcoal; fifth, if mixed with distilled water that will dissolve a 20th part of it, the remaining precipitate is the powder of algaroth, or a submuriate of antimony; sixth, if it has the property of whitening a silver piece, and of blackening one of tin; seventh, if it dissolves by nitric acid, and if this red yellowish solution deposits a white powder, which by calcination with potash or charcoal, is ultimately revived or restored to its metallic state.

Nitrate of silver may be swallowed in substance or in solution; when melted in water, it is of a milky hue; taken in the dose of one or two draughts, would be a poison. A few drops at a time have been found useful in the croup, and in intermitting fevers. It is an ingre-

dient of a preparation for the purpose of imparting a chesnut, or black colour to hair, which sometimes becomes purple! We therefore have reason to be prepared against accidents.

It may be detected in vomited fluids, or in water in which the stomach or other parts should be washed. First, having well diluted the matter to be tested, with some nitric acid, drop some sulphuric acid in it, and it will immediately give a white precipitate; second, add to the same, or to a portion not yet tested, arseniate of potash, and the precipitate will be red; third, on these two saline substances, pour water impregnated with sulphurated hydrogen, and the precipitate will be black; fourth, experiment on the vomited matter with liquid ammoniated copper, and the precipitate will be green blue; fifth, with oxalic acid, the precipitate will be white; sixth, with arseniate of silver, it will be yellow; seventh, by muriatic acid, it will be white, and turn brown when exposed to the light; the result will be the same by lime water; and if with this last well dried, you mix pure ammonia, you make fulminating silver, &c.

The muriate of gold, having been some years back introduced as a remedy in syphilis, and other complaints, has become a subject of much uneasiness on account of certain effects on the human body, especially that of producing bluish and indelible spots on the skin.

Dr. Chretien, of France, who first introduced it, warned his readers of its dangerous influence at the dose only of many grains. It is seldom exhibited in a larger dose than one grain.

It may be detected in animal matter, or fluids, by the following signs; first, its deep yellow colour; second, its easy reduction to metal on burning coals; third, its prompt solution in water, and colouring it yellow; it corrodes animal matter, and colours it purple; fourth, it forms a red precipitate, by a solution of nitrate of silver; this is soluble in part by ammonia, which returns the yellow colour; other alkalies, hydro-sulphurets, and gallic acid precipitate it brown.

For the benefit of our readers, who may not know it, we will mention one more poison, perhaps very little

suspected, and most probably frequently mistaken for a dose of salts; and that is nitrate of potash or saltpetre. An ounce dose of it is a real poison.* Orfila says, that two or three scruples may produce death. Poisonings by it, are recorded in the Journal of Medicine of Paris, and have lately been observed by Mr. Desgranges of Lyons. Its tests and chymical properties are too well known to require mentioning. It burns and crepitates on live coals; at a high temperature it ignites combustibles; is not decomposable by any acids, and chrystallizes in hexahedre prizms.

This exposition of the poisons which operate by *corrosion or lesion of the stomach,* contains only the analytical researches, by which the author has ascertained the respective nature and quality of the same, before and after death. Should even the poison be entirely discharged or decomposed, it is sufficient that it has produced death by contact, and there must be means to find out its component parts. So far, this elementary treatise imports great authority in medico-legal investigations; but with this acquired knowledge, we may go further, and establish therapeutical rules, by which medical art can be successfully resorted to, whenever there is a possibility or a chance of arresting its ultimately fatal effects.

Mons. Bertrand has carried his inquiries into all the possible chemical reactions which could be thought of, and has experimented upon every one of this first class. In a great number of them the poison has been neutralised. To diminish the causticity of concentrated acids, many celebrated chemists have recommended pure magnesia, the solution of soap, ash-ley, and volatile ammonia; others have indicated the sulphuric acid well diluted to neutralize the alkalies; Crawford of England, proposes sulphate of barytes to decompose the muriate of the same earth; Berthollet and Rollo have speculated upon alkaline mixtures, carbonates of potash and soda, of lime, upon the decoction of cinchona, the hydro-sulphuret of ammonia, to arrest the corrosive and deleterious effects of mercury.

* Violent and fatal cases are related in Med. Repos. vol. 3. p. 17.

What has not been devised and thought of besides against arsenic, copper and antimony? The author is perfectly aware of the respective merit of all possible suggestions on these subjects; the following are his conclusive inferences.

1. No dependance can be placed on a complete neutralisation of poisons, to guard against the destruction of the parts they are put in contact with, unless chemical reactives should have been taken at the same time, and in a proper proportion to effect the change.

2. Should there be any decomposition or neutralisation of poisons in the stomach, it could not be effected without some other chemical combination of salts and compounds which might themselves become another deleterious cause or poison, and form besides, a variety of gases absolutely insupportable to the patient.

3. If a chemical reactive is judged from the laws of nature, from quantity, time, degrees of heat, auxiliary ingredients, and perfect purity of the substances to be tested upon, it then becomes evidently uncertain, where none or few of those data are to be obtained in a stomach already charged with various substances; and when the poison may already have effected its ultimate results, or when by its simple irritation, the secretions from that organ can be such as to weaken or neutralise both the poison and the reactive.

4. Granting that either charcoal or albumen have in some instances neutralised a caustic poison, when given to animals mixed with it; this is not a proof that they would exercise the same reaction if administered separately, or some time after, and much less, at an uncertain, or great period of time from each other.

Therefore, within the boundaries of science, we can say, that we are not in possession of any real *neutralising* or *antidotal* remedy of caustic poisons; and if any, they cannot be recommended but as auxiliary, and perhaps useful means. The indications that remain to be attended to in poisonings in general, and in those that have been already described, are two; the first is to oppose the progressive effects of the poison on the coats of the stomach, by endeavouring to expel it by vomiting, and to stop or diminish its absorption; the second, to

counteract the local irritation, and the general disturbed state of the system, by means which are best calculated to recall those vital functions, which are suspended, or in danger of being destroyed. The first and principal means recommended in answer to the first indication, and that which is found easier and sooner than any drug or compound; that which takes but a few instants to warm a little; that which of itself easily provokes puking; that is, *warm water.* It surely dilutes, dissolves, and weakens the swallowed poison, provided enough of it is taken; the fibres of the stomach upon the liquifying mass, being aided by a little irritation on the larynx by a feather, or the finger, puking will be raised and kept up as long as necessary; the more so, as a poisonous substance received into the stomach, seldom fails exciting and provoking to puke. Should this salutary and simple remedy be timely and copiously poured on the most concentrated of the substances already enumerated, they could not prove fatal, because there is not one of them but at its contact with the internal coats of the stomach, contributes to the forming of a lining mucous of different colours, which will for a time cover and protect the membrane.

A remedial improvement may, no doubt, be added to warm water, and one very consistent to the hypothetic doctrines of chemical reactives, especially in all cases of poisoning by concentrated acids and alkalies; this is *charcoal* from the ordinary embers of a wood fire; which being washed, should be quickly pounded as fine as possible, and mixed with water in as great a quantity as can be swallowed. By the presence of which in the stomach, neutralising effects of concentrated acids or alkalies are, no doubt, to be expected. It is not here surmised that any vomitive agent should not be used; as ipecacuanha, tartar emetic, or white vitriol, which is acknowledged to be one of the quickest for that purpose. These are always approved, but they are not perhaps handy in a moment of danger, for which it is the object of our author principally to give his best advice and direction.

An objection is now offered against the prompt efficacy of vomiting; the trismus of lock jaw succeeding

to poisoning. That there are means of introducing vomitive solutions into the stomach under that circumstance, no practitioner will doubt, who will use the following mechanical means. An elastic gum tube or catheter may be introduced through the nostrils to the fauces, or around one of the sides of the jaw to the last molar tooth opposite the coronoid apophysis of the jaw, where there always exists a space through which the tube may be directed into the œsophagus; and if to this tube a strong syringe is adapted, a quart of warm water or any emetic mixture may be poured into the stomach.*

When the poison has been rejected from the stomach, whatever portion may have passed beyond the pylorus, may be better counteracted by oily and mucilaginous mixtures of barley, flax-seed, chicken, or veal water, and others; adding from time to time, small doses of castor oil and oil of almonds.

Whatever may be the therapeutic means for the recovery of persons in voluntary or accidental poisoning from concentrated acids, alkalies, salts, or metallic oxides, we suppose that every prudent practitioner can devise the best, according to the circumstances of the case; and we therefore dispense with further details; we will only remark with the author, that he has much experimented on animals with charcoal, with the albumen of eggs, muriate of soda, tanning principle, and the extract of borrage, and we think that they may be usefully employed as auxiliary remedies, (especially the two first,) in poisonings by metallic substances.

[*To be continued in our next, on the second class of poisons.*]

* In a case of trismus of the jaws of a young man who was in a violent state of madness, having great reason to suspect that he actually suffered from an indigestion, I applied a quantity of ice round the neck and under the jaw; by which means he was immediately enabled to open his mouth, and swallow a large emetic draught. He rejected nearly a bucket-full of undigested and offensive aliments; he was restored with no other temporary bad effects than the bruises he had received during his struggles at mischief, and extreme weariness. *Editor.*

Medical & Surgical Correspondence.

A Case of VENTRAL HERNIA *of the* GRAVID UTERUS, *and of subsequent Natural Delivery. By* JOHANNES SYLVESTER SAXTORPH, M. D. *Professor in the University of Copenhagen, Member of the Royal Medical Society, Knight, &c. &c. Communicated by his Danish Majesty's Minister to Professor* SAMUEL L. MITCHILL, *Corresponding Member of the Royal Medical Society of Denmark, &c. Extract, translated from the Latin, by* Dr. F. PASCALIS.

THERE have been few instances of hernia of the uterus; fewer still in a state of pregnancy; but none, it is believed, could be produced from medical records, of a natural delivery, at term, in a case of hernial gravid uterus. Fabricius Hildanus mentions two cases of the kind, which at the end of gestation were submitted to the cæsarean operation, and both women died. Several authors have noticed this kind of impediment, as one in which, there would be no way of saving the life of the mother, but by the knife; many more obstetric writers have omitted to mention even the name of so singular and rare a mal-position; which is, therefore, so much more deserving the attention of medical readers.

I was consulted, on the 20th of August, 1817, by the provincial surgeon, *Sager*, upon the case of a woman who laboured under a hernia of the gravid uterus; she had, he said, a large tumour originating from the right inguinal region, extending on the anterior and internal surface of the thigh, nearly reaching the knee; it was a large, round, tense, and elastic tumour; at the touch, it did not appear painful; nor could it be determined that it was a cyst containing fluid. The woman (who had formerly bore children,) said, that she felt in it motion, much similar to quickenings of a fœtus, especially when she drank any thing warm; this motion Mr. Sager himself had perceived, and through it, something like the

limbs of a child. As at present the woman was, and had been two days, in pains common to pregnant women, he could not reject the belief of the almost incredible nature of the case; I advised, therefore, that the woman might be brought into the *lying-in* hospital, where I would more properly and officially be judge of her situation. There I saw her on the 24th of August, and was really astonished at the size of the tumour, which, at a superficial touch, offered fluctuating contents, and more deeply, some solid and transversal parts, which Mr. Sager had taken to be the ribs of a fœtus; on the apex of it, there was a space as large as a dollar, slightly excoriated. By examination *per vaginam*, I discovered nothing very uncommon, except, that the orifice of the matrix was high, and I no where found the weight, or the size of a bulk to be felt at such an advanced period of pregnancy. My learned colleague, Professor O. Bang, jun. and the first matron, Mrs. Frost, could neither of them discover the remaining section of the uterus, much less the bulk or motion of the fœtus.

To describe this tumor more exactly, I should say, that it appeared to originate along the tract of the ligament of Poupart, as if it came from under, and adhering to it; and by pressure above and below it nothing from the tumour could be compressed into the abdomen; but the whole remained tight and compact as cysts and membranes distended with a fluid matter. In the left groin of the same woman there was a hernial sac from the abdominal ring; it apparently contained a folding of the intestines, which could be easily compressed; but this tumour had neither connection nor similarity with the subject of the present observation. In her complexion, this woman was emaciated, and much like that of labouring country people, long inured to the hardships of life. Her feeble body was in conformity with her mind, from the imbecility of which, I hardly could obtain, by various questions, an account of her former life and habits; the following information, I did, however, collect. When yet a child, she met with a fall, and from it, a tumour or swelling took place on the side now so prodigiously enlarged; but she never knew

what it was, nor did she experience any harm from it. She had always enjoyed good health; four times she had been a mother, and always with good thorough going; at the last child-bearing, however, she had noticed, that this tumour had nearly grown to the size of a head of cabbage; it had rapidly increased since the last of April, and especially during the two last months; her menstrual functions ceased at the same period; from which circumstance, she suspected that she might be pregnant, although she had no further proof of it; being besides arrived at the completion of the 49th year of her age. She had, lately, experienced frequent returns of pains in her limbs and body; intermitting, however. They were now supervening, with great efforts in the discharges of urine, as witnessed by a nurse who thought she was in labour. She had been much confined in her bowels before she came into the hospital; I therefore ordered a suitable enema, which proved operative and useful.

From the last day of August, until the 13th of September, I did not see this extraordinary case; the woman had, however, been successively visited by my colleague, Professor Christianus Fenger, Knight, &c. &c. and by the physician of his Swedish Majesty, Westberg; also by the three candidates in the hospital; none of whom could suspect the existence of a fœtus.

While the matron Mrs. Frost had, by close and repeated observation, discovered some internal motion in the tumour, my colleague, Professor Erasmus S. Thal, had not been so fortunate; and he thought it was nothing but a vast collection of lymph; therefore, not having certitude myself of her pregnancy, I was obliged, in conformity to the regulations of the lying-in hospital, and much against my desire, to have her removed into the civil hospital; where Professors Fenger and Thal visited her. The tumour had considerably increased. To relieve her of the oppressive weight of it, the last gentleman had devised, and applied to it a kind of wrapping or bandage. The woman was perfectly well in all her habit, sleep, appetite, and natural functions. At this period, my colleague Thal, and the matron of the civil hospital, (who had been the mother of seven chil-

dren,) informed me, that every morning they could plainly feel the internal motions of this tumour, and much like a fœtus *in utero*. The veins of the skin over it, were more turgid. Professor Withusen joined also, and confirmed the circumstance. From the accurate observation and measurement made by those gentlemen, the whole tumour was supposed to weigh from 14 to 15 pounds.

On the night of the 1st of October, a watery fluid, inodorous and unmixed with blood, was announced to have been discharged from the natural parts, and caused a great diminution of the size and tension of the tumour. I visited the woman, and observed that a depression was also formed, as it were, from the neck of it, and running obliquely, so as to shape it into two eminences; I discovered that a fresh watery effusion had taken place. The patient continued in other respects very well.

On the 2d of October, early in the morning, she experienced a violent attack of pain in the tumour itself; less in the lumbar region, and none at all in the abdomen; they were intermitting, strongly marked with bearing down, and by the nature of her screams. As they were in all respects similar to labour pains, my colleague Thal desired that she should be removed into the lying-in hospital, where she was received on the same morning at 6 o'clock, and where the first matron, Mrs. Frost, ascertained that the *os uteri* was dilated one inch and a half; and on the right side of the pubes, she had distinctly felt the head of the fœtus. I wished my own evidence in the case, and was not only convinced, but discovered a prolapsed ring of the *funis umbilicalis*. The pains continued strong and regular, which comparatively to her bearings down with effort, did not much advance the progress of the head; nor did the woman feel their effect upon the orifice, but only in the tumour, and very moderately in her back. No waters or membranes were now perceived, as they had flowed the day before. I now ordered an enema, which proved operative.

At 10 o'clock, I visited her with Professors Fenger, Thal, and Bang, and found the orifice more dilated, that the head filled the superior brim of the pelvis better, that the incipient tumour of the scalp was soft, and that a

larger ring of the funis had advanced; the same result was confirmed by the above named gentlemen.

At 10 o'clock, P. M. the pains had but little abated, the head had further advanced, the orifice was more dilated, but, however, too far down, to attempt any artificial help.

At 5 o'clock, P. M. the orifice again enlarged; another enema is ordered, which freely operates.

At 8 o'clock, P. M. I was informed by Mrs. Frost that the orifice was now perfectly *obliterated*, and the head engaged in the strait; that by force of the pains the child was progressively propelled. I attended immediately with Professors *Fenger*, *Thal*, and *Bang*, with the three candidates of the hospital; and in our presence at 9 o'clock, and by the sole help of nature, she was delivered of a female child, and *still born*. The large bones of the head, had, by pressure, been forced through the cutis and epidermis, and in several places, the latter was detached from the other. The following dimensions were immediately taken.

From the head to the heel,	18 inches.
Oblique diameter from the chin to the occiput, -	5½ inches.
Weight, - - - - -	5½ pounds.

The nails of the fingers and toes were soft and imperfect; in every other respect, the body and limbs were of regular shape and well nourished. The tumour, in which the fœtus had been inclosed, had already much diminished, nor did it appear pendulous on the thigh, and could be raised towards the abdomen without any difficulty. Having given the woman three quarters of an hour, to be, perhaps, naturally delivered of the secundines; and finding, however, that she grew weak, we immediately extracted them by the hand, without hemorrhage. The tumour, which contained the uterus, retained the shape and size to which it was reduced after the expulsion of the fœtus. We confined it on the abdomen with a large folded cloth, and gently compressed it, to prevent its collapse on the thigh; and after having given her some strengthening and nourishing draughts, she was removed from *the couch* to an ordinary bed.

Her confinement was uncommonly easy, and free from usual indispositions; few medicines were resorted to; a proper and restorative diet enabled her, on the 23d of October, the 21st day after parturition, to be transported to her home. The greater part of the uterus still protruded from the abdomen, and formed a complete hernia, with a sac distinctly felt by the fluid it contained. We also ascertained that it was not through a natural ring, but an accidental separation of muscular fibres, that this hernia had been forced out!

A singular Case of fatal ASCITES, *from schirrous Liver, and habitual use of Opium. By* Dr. ABRAHAM CORNELISON, *of Rockland County.*

SIR,

I send you, agreeable to your request, a more particular account of the case of ascites you wished to publish.

Mrs. Green, aged 56 years, a prudent, industrious woman, the mother of several children, for several years made it almost a constant practice, when the market boats from this county carried produce to New-York, to be passenger with some produce of her husband's farm. The vicissitudes of the weather did not deter her from pursuing this mode of accumulating the emoluments (though trifling) of so laborious an occupation; she had been in the habit for several years of taking small quantities of opium, the effects of which, no doubt, rendered her at times more determined to persevere in this unpleasant and disagreeable employment. In September, 1817, I was called to visit this old lady. I had previously heard of her abdomen being greatly distended, and that she conceived herself pregnant, although she had had no appearance of her catamenia for nine years past, still she was induced to believe she might, like Sarah of sacred history, miraculously conceive and bring forth an infant in her old age, when beyond child bearing; so confident was she of her parturient situation, that

she procured clothing for her expected offspring. Her friends were anxious to have the best assistance that could be procured for her in her moments of difficulty. A variety of persons were talked of; one of her nearest relatives solicited me to attend her. I informed him I conceived there would be no necessity for any application of the kind; that she must have been imposed on by improper advice and impressions; that the age of miracles had passed; and from all I had heard, I was confident she was dropsical. He observed that he could not think so; to be sure, he said, the motion of the fœtus was more obscure than she had previously been accustomed to; but he had never heard of any motion in dropsical patients. I was called by the husband, at the time mentioned, to visit this patient as soon as possible. Her situation he described to be painful. I was confident in my mind, he conceived her to be in labour, and so indeed did she; she was bolstered up in bed, her abdomen greatly distended, her breathing short and laborious, her stomach so oppressed, it could retain but little nourishment, coughed up frequently mucus mixed with blood; the muscles of her abdomen were so distended, that the fluctuation would scarcely be perceived; she said the tumefaction commenced eleven months previously, and that she had gone two months over her time; that she had felt some obscure motion, particularly when turning in bed. I inquired whether her breasts were tumid. She observed they were more flaccid than usual, and had in proportion with other fleshy parts of her body become less. She had passed for several months but small quantities of urine; the *os uteri*, from debility, relaxation, and pressure of water in the abdomen, was low in the vagina; her pulse was small, frequent, and weak. I informed her there was no relief for her without performing the operation of paracentesis. She reluctantly consented to it; but not without having the opinion of a neighbouring physician, who acquiesced with me, when nine quarts and a half of limpid serous fluid were evacuated. From her debilitated state, we conceived a recumbent position would be the most favourable, and more likely to prevent syncope than any other. The puncture was made two inches

below the navel. After the evacuation of this fluid, a large and extensive tumour was observed and felt from side to side, and under the umbilical region. The muscles above this tumour were so distended as to give somewhat of a shining appearance to the skin. I mentioned to her that her liver was prodigiously enlarged. The spectators never seeing or hearing of such enlargements, were induced to believe there was still a fœtus contained in the abdomen; so positive were many of her friends and relatives, that they could with difficulty give up their opinion, although the tumour was in the upper part of the abdomen. This tumour was not painful on pressure, nor did she complain of much pain in it at any time; the most pain she experienced was from the distension of the abdominal muscles a few days before each operation, when the quantity of water became in every respect oppressive to her, as mentioned before. To diminish a tumour of such extensive and rapid growth, I conceived an impossibility; however, I considered it my duty to try how far the submuriate of mercury, by its stimulant effect, would excite absorption; it was given in small quantities, until her mouth became gently affected; the tumid part of her abdomen was frequently washed with warm brandy; she took bark and small quantities of wine to give tone to her system; she could not abstain from her favourite and habitual use of opium; those remedies had no favourable effect, except she passed more urine than usual, while her system was under the stimulant effects of mercury. She required a repetition of the operation in six weeks from the first, and every five or six weeks the operation was repeated for twelve successive times, with very little deviation as to the quantity mentioned. After every operation, she was easy and comfortable for some weeks, but the tumour could evidently be observed to have increased. She expired a few days ago, about three weeks after the last operation, being the most emaciated object I ever beheld. She lost by repeated operations one hundred, eleven and a half quarts. I endeavoured to obtain consent of her relatives to open her abdomen, but it was denied. I would observe, that in several operations towards the close of the evacuation of serum,

a small quantity of thick coagulable lymph of a pus-like appearance was discharged. I did not pretend to cure this patient; she therefore had recourse to a variety of remedies; hearing of the fame of a dropsy Doctor residing in New-York, her case was related to him; he sent her his nostrums of emetics, cathartics, and sudorifics, desiring her to abstain from all liquids for three weeks. She made use of those specifics until they almost terminated her existence, with the greatest confidence of their eventually curing her. How sweet is life, and how anxious are the hopeless to catch at promises from the most base impostors!

Believe me to be,
your friend and humble servant,
A. CORNELISON.

Dr. F. PASCALIS, *one of the Editors of the Medical Repository.*

Case of a SUCCESSFUL TRACHEOTOMY, *for the purpose of extracting a* FOREIGN SUBSTANCE. *By Dr.* AMASA TROWBRIDGE, *a Delegate from the County of Jefferson. Communicated to the Editors of the Medical Repository, and read before the Anniversary Meeting of the New-York State Medical Society, February 3d,* 1819.

MARY ANN DEAN, aged seven years, of the town of Rodman, Jefferson County, on the 15th November, 1818, at 12 o'clock, M. accidentally drew into the trachea a large dried garden bean. She was nearly suffocated, in the first minutes after the accident. A neighbouring physician was called, who found the child, as he supposed, expiring. In the hurry of proceedings, an emetic of Ipecac. was administered; it soon excited the stomach, and threw out a bean.—The child at the same time, became relieved; there was a belief, that the bean was thrown from the wind pipe. A messenger had been despatched to request my immediate attendance. I arrived at 9 o'clock, P. M. found the patient an uncommon intelligent child, possessing much fortitude and con-

sideration. She told me she was much relieved after taking the emetic; but that she then "*had a pain in the upper part of the breast, and that it hurt her there, extremely, to make a long breath—that there was a constant disposition to cough, which she prevented as much as possible; fearing if the pain came again higher into the throat, it would kill her.*"

Respiration was disturbed, there was a strong disposition to cough, and rattling in the throat. A bean having been thrown out in puking, I was induced to believe, that the symptoms might be occasioned, by the irritation the bean had produced, by passing into and out of the trachea, and that it was probably expelled. I left the patient, with directions, if suspicions of the bean's being in the windpipe should return or increase, to inform me; at the same time, pointed out the necessity of an operation to give relief. At 6 o'clock, P. M. on the 16th, a messenger informed me that the child had suffered several extreme paroxysms of distress, and that the most urgent symptoms of suffocation had prevailed, attended with convulsions.—As it was evening, and the patient ten miles from me, and the additional difficulties of attending an operation in the night, I delayed visiting till morning.—17th, 8 o'clock, A. M. found the child extremely feeble, with quick small pulse, a distress in breathing, and other symptoms, that produced conviction in my mind, that the bean was lodged in the bronchia. I immediately prepared for the operation—placed my patient upon a firm table, with a twisted pillow under her neck, and the head pressed back, her body and extremities supported and secured by assistants. I made an incision in the direction of the trachea, beginning near the cicroid cartilage, and carried it down two inches, dividing the muscles and integuments; a profuse bleeding was occasioned by a division of the left subclavian vein, which passed obliquely across the trachea: I placed ligatures upon the bleeding extremities. I now began at the third cartilage, and divided the trachea in a perpendicular direction one inch through three of the rings; the patient respired freely and easily through the opening. The bean not being discovered, I placed a steel distender; this separated the lips of the wound,

gave an opportunity for instant inspection of the cavity of the trachea, and the introduction of instruments for extraction of the bean; some coughing ensued, and a bloody mucus discharged at the wound. My patient was turned upon her side, and permitted to drink milk, which she swallowed with ease. She remained in this situation one hour—finding but little disposition to cough, I introduced a bent probe, with a scoop point, into the trachea; this produced coughing and bleeding, from the bronchial vessels. The patient being considerably exhausted, and the bean not making its appearance at the opening, I directed light food to be given occasionally, and delayed searching for the bean in hope that it would soon appear at the opening—left the patient 3 o'clock, P. M.; visited again on the 19th, 7 o'clock, A. M.; was informed that the child had taken food and slept considerably during my absence,—that a rattling in the throat and difficulty in breathing, had been increasing for the last twelve hours—found her pulse extremely small and quick, cold extremities, laborious respiration, free discharge of mucus at the opening, a feeble action of the left lung, an unusual heaving or rising and convulsive action of the right one, a livid countenance, with the usual symptoms that attend a patient in the last stage of pneumonia. I was fully satisfied that the bean was lodged upon the left branch of the trachea—that it impeded the inflation of the left lobe of the lungs—and that the patient would not, from her feeble state, be able to raise it from that position.

I bent a silver wire, twelve inches long, at its centre, formed a loop half an inch in diameter—bent so as to form a hook; this I introduced through the opening down to the right branch of the trachea, with the hook turned to the right lung; this produced strangulation; after a few efforts made by the child, I suddenly turned the hook to the left side and drew it up, found the bean was inclosed in the hook—drew it within an inch of the opening, when it slipped from the wire; I withdrew this, and introduced a pair of small round forceps, placed them upon the bean, and drew it out. I then took off the steel distender, and closed the wound by drawing through the muscles and integuments a liga-

ture, and covered with adhesive plaster. Respiration and expectoration of bloody mucus at the mouth being easy—a gradual recovery, attended with prickling sensations upon the extremities, with the usual symptoms of resuscitation, appeared for the first twenty-four hours; directed inhaling the vapour of hot water—a cataplasm was applied over the wound and neck—mucilages for drink—the extremities to be frequently steamed with warm water—a bleeding in twenty-four hours, and cathartics if necessity required it;—left the patient at four o'clock, P. M.; visited on the 21st, 9 o'clock, A. M. found the patient rapidly recovering—the wound closed externally by the first intention—some pain in swallowing, occasioned by the action of the muscles through which the ligature had been fixed—since entirely recovered.

REMARKS.

In all cases of Bronchotomy, the steel distender is preferable to tubes. In placing the tube where there are substances to be extracted or forced out by coughing, the operator is extremely embarrassed; he has no opportunity to inspect the cavity of the trachea, or to seize the offending substance when it is thrown to the opening. The tube is constantly thrown out or pushed too deep into the trachea, or filled with blood and mucus, so that its frequent removal and replacement, becomes necessary. The steel distender, with indentations on its outer sides, remains firm where it is placed; opens the incision so that the cavity can constantly be inspected, the offending substance seen, thrown out by coughing, or searched for by suitable instruments. In the operation when performed for Croup, the distender is preferable to the tube, and the perpendicular incision into the trachea, may be made more successfully than the transverse one. It is generally admitted, that in cases of croup, there is, after the third or fourth day of the disease, a membranous lining internally formed, commencing at the larynx and extending to the bifurcation of the trachea, of considerable tenacity, varying in thickness and density; a quantity of mucus is at the same time constantly emitted from the lungs, suffocation may take place by the thickning of this morbid membrane, and the

lodgment of mucus in its cavity, or for the want of powers in the system to throw it off—or passage in the glottis for this secreted mass of purulent matter, or serous effusion, to be thrown out. No person of experience, or sound understanding, would suppose that a horizontal incision between the rings of the trachea, and placing a tube, could relieve, but if the incision is made perpendicularly, and freely through the rings of the trachea, and a distender placed, if the membrane or morbid mass could not be removed immediately with forceps and scoops, it would give free exit to secreted mucus, and prolong life, till the membrane separated from the trachea, could be easily removed or thrown out.—The needle and ligature are preferable to adhesive plaster, for securing a wound in this operation.—The want of success in uniting the sides of the trachea, when it is divided perpendicularly, is owing to their not being kept in contact: divided cartilage, unites in the same manner, and with as much certainty, as bone, when kept in contact. The act of swallowing disposes the two edges to separate, and without they are brought firmly together by passing a ligature deep through the adjoining muscles, there is danger that they will remain disunited and occasion serious difficulties.—There is but little inconvenience from blood drawn into the trachea through the incision, when an offending body is drawn into its lower part.—An offending substance may be drawn into the trachea, lodged near its bifurcation, and remain there for weeks, without producing much distress; but when raised to the epiglottis, the patient is in a state of suffocation, and may expire suddenly.

Monography *of* Tetanus, *or* Trismus *of the* Jaws, *successfully treated. By* S. Ffirth, m. d. *of Hyde Park, South-Carolina. Communicated, October,* 1818.

June 7th, 1811, I was called to visit Tinch, the property of His Excellency H. J. Middleton, Governor

of South-Carolina. I found her labouring under tetanus, completely formed; it originated from a wound occasioned by a puncture with a nail in the right *malleolus externus*. The disease had made its first appearance the preceding day; her jaws were now fixed; and every half hour she had a violent attack of opisthotonos. I scarified the punctured ankle very deep, so as to divide any of the nervous branches which might be injured; poured in spirit of turpentine, and applied a dossil of lint impregnated well therewith, over which I ordered to be placed a poultice; the warm bath was directed to be used every three hours; a decoction of heart snake root (the *asarum canadense*) to be used for constant drink, instead of water. The following mixture was prescribed.

℞ Asthmatic Elixir,	ʒiij.	
Tinct. Assafœtida,	ʒiij.	F. M.
Tinct. Cantharides,	ʒij.	

To take half an ounce every three hours while in the bath, and as soon as the jaws are so relaxed by the bath as to enable her to swallow. The following liniment was also ordered.

℞ Tinct. Opii,	ʒi.	
—— Camphor,	ʒijj.	
Spt. Corn. Cervi,	ʒi.	
Tinct. Cantharides,	ʒi.	F. M. Lin.

To rub well the jaws with; after which apply a large blister thereto; rub the spine with the liniment every hour.

The above plan seemed to arrest the progress of the disease, but not to cure the patient, or remove the complaint so promptly as I desired; the wound suppurated and discharged as I wished; but the spasms recurred every hour; perfect relaxation of the jaws took place while in the bath; but in coming out therefrom, they again became rigid. She could only take the medicine while in the bath. Blisters were ordered to the temporal muscles, to the nape of the neck, and to the spine; all to be kept discharging by dressing with basilicon ointment, in which a due proportion of finely powdered cantharides were mixed; her bowels were kept open by injections of heart snake root tea, with salts and cas-

tor oil, and as occasion required, a large dose of calomel and gamboge was exhibited. I observed that whenever the blisters discharged freely, and strangury existed, the disease was moderated; the spasms recurred but seldom, and the jaws were relaxed; when the strangury subsided, the disease increased in violence; though it never became so severe as when I first saw her. After persevering in this plan until the 12th of July, and finding that though the disease was moderated, it yet continued, I ordered the following:

℞ Tinct. Cantharides, ℥iijss.
——— Opii, ℥iijss.
Spiritus Lavendul. Compos. ℥ij. F. M.

To take one table spoonful five times in the 24 hours.

℞ Tinct. Thebaic Opt. ℥iij.
——— Cantharides, ℥vi.
Spiritus Cornu Cervi, ℥iv. F. M. Lin.
Tinct. Camphor, ℥iij.

To rub the parts affected by the spasms every time they recurred.

℞ Ungt. Mercurial fort. ℥iv.

Rub well the jaws with a lump the size of a nutmeg four times a day. Wine was ordered; equal parts of good madeira and a strong decoction of heart snake root; a wine glass full every two hours; and the last to be continued for constant drink; the diet to be nutritious. Under this plan the disease gradually yielded, except that a rigidity of the muscles of the jaws remained, and inability to open her mouth, until in the warm bath, which continued until the mercury affected the glands, and produced ptyalism; on the occurrence of this, the rigidity ceased; perfect relaxation ensued; she continued debilitated for some time; but the free use of the madeira and nourishing food restored her strength, and she was discharged cured on the 23d of August, and is now in good health.

A Case of Paracenthesis of the Thorax. *By Doctor* Charles Hall, *a Censor of the State Medical Society of the State of Vermont. Communicated Jan. 12th,* 1819.

Swanton, January 12th, 1819.

Luther Walker, a man about forty years of age, was riding in a waggon with several others, from this village to St. Albans, and while passing a short piece of woods, a dry hemlock tree fell across the waggon, and struck him in a diagonal direction across his back and right shoulder.

For the first six hours he remained comatose, and apparently lifeless, so that the physicians present did not see fit to apply any material remedy. About ten hours from the accident I was called, and visiting the patient, found him apparently insensible, and his symptoms so alarming as to afford the smallest chance only, of medical assistance. His scapula was fractured into several pieces, the head of the os humeri dislocated, several of the ribs on the right side broken from their articulation with the *sternum*, and two of them fractured in other places, so that the *Pleura* had been perforated at about the fifth rib—thereby the texture of the lung had been ruptured, consequently a vast quantity of air had accumulated, not only in the cavity of the thorax, but diffused, in every direction, throughout the whole cellular tissue.

From the collapsed state of the lung of that side, and the increased pressure of air on the diaphragm and vital organs, the clearest conviction of suffocation was shown, which soon must be fatal without some speedy relief. —The aperture through the integuments, where the ribs were fractured, was so large, that at each respiration the skin was perceptibly elevated over this part—there being no rupture of the skin any where else.

Under this view of the case, I did not hesitate to recommend what I considered the only remedy, that of performing the operation of *Paracenthesis Thoracis*. I was strengthened in this, by the united opinion of the physicians present.

I made the incision between the fifth and sixth ribs, forward of the axilla, and when I pierced the *pleura*, the confined air burst forcibly out, and instantaneous relief was given to the unfortunate sufferer. From this time respiration became less difficult, and the emphysematous enlargement gradually subsided, so that in twelve hours he could converse, and (by holding his body in a particular position) could breathe without any interruption. In two weeks from this injury he could walk the house, and has since recovered his accustomed vigor and usefulness.

REMARKS.

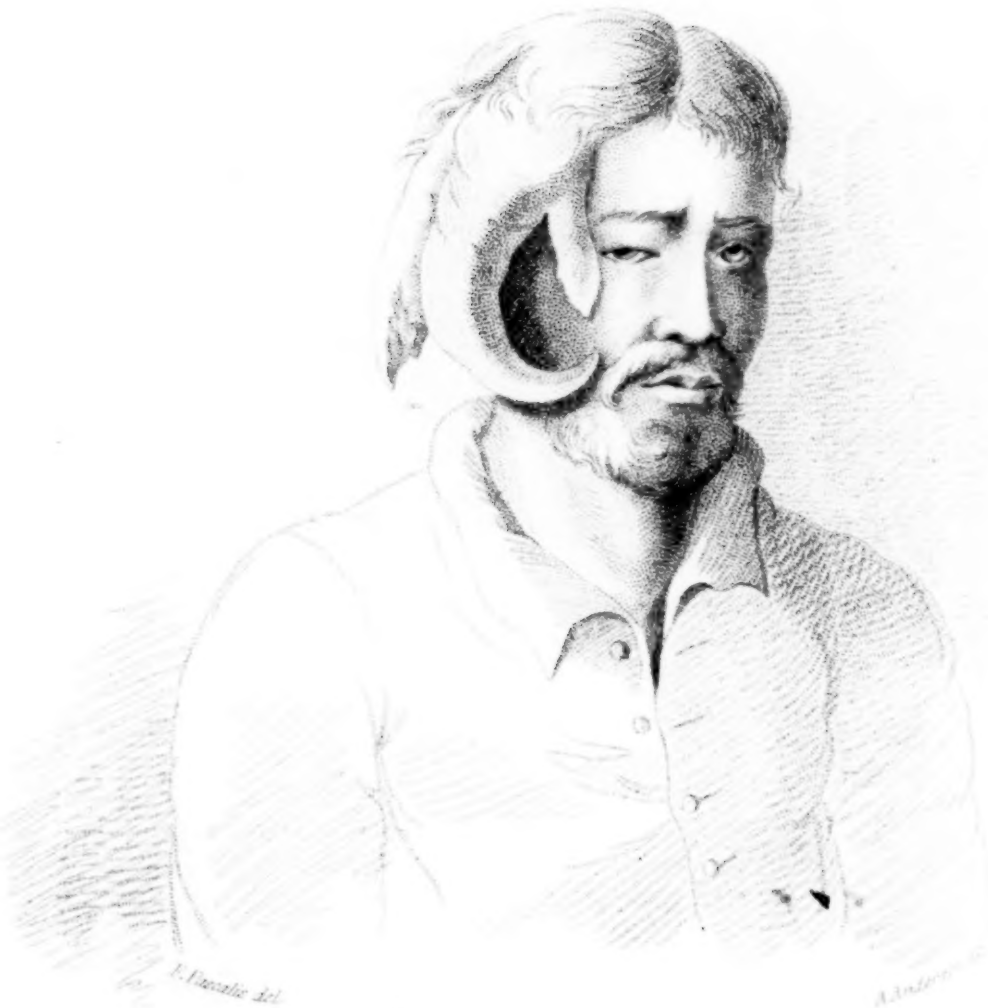
The free admission of external air into both sides of the chest, must be attended with instant suffocation, and the annihilation of the action of the heart; but should air penetrate into one cavity only, the act of inspiration from the other can neither be full nor free, owing to the collapsed state of one lung, which depresses the synchronous expansion of both. In this case very little blood can be transmitted from the pulmonary organ into the heart, and insufficient to the waste of life; nay, from the doctrine and experiments of Hunter on respiration, the sympathy of action between the lungs and heart is so great, that the first becoming materially diminished, the latter organ could not even circulate a much reduced quantity of blood through the system. Life may be kept up by a small quantity of it, as accidents of profuse hemorrhage can prove; but the impaired action of the heart is progressively verging to its end: hence the fatal effects of pulmonary consumption!

The above interesting case was promptly and effectually remedied by paracenthesis; and no doubt, by further attention of the surgeon, to the most absolute seclusion of external air from the chest of his wounded patient.

Remarkable Case of a Horned Man *in* Mexico.
(With a plate.)

PAUL RODRIGUEZ, of the city of Mexico, a packer by trade, very tall and of strong muscular habit, had always been seen with his head covered and wrapped up carefully with a handkerchief; probably to conceal a large wen, or some kind of natural deformity. He was once working in a store near a large pile of barrels of sugar, when one of them rolling down from the top, struck his head, and laid him apparently senseless on the ground, bleeding very much from under the wrappings. He was immediately carried to the Hospital of St. Andrew (Anderos); where it was discovered, that from the upper and right side of his head issued a hard and large body, 14 inches in circumference, which dividing itself into two branches at a few inches from the root, formed two large curved horns, with their points turned in, and several inches below the ear; one of them which was more elevated and posterior, was found broke at two thirds from its origin, as if the lower end had been splintered off by a violent blow. From the anterior, and three inches from the root, another and much smaller branch issued, and descended over the zygomatic process and the maxillary bone, laterally to the middle of the cheek; there was about an inch space between the end of this, and that of the middle excrescence of 12 inches, which was turned up, and left nearly a circular space between the two horns, through which the man could easily touch his ear. The whole mass was of a horny nature, presenting, like the horns of a ram, numerous knots and striæ on the surface, and as formed by successive layers. It could be scraped with a knife; and when burned, it exhaled a smell similar to any animal substance of the kind.

The violence with which the rolling barrel of sugar struck against the posterior horn, not only broke it, but forced as it were the whole mass from the scalp, and tore it in several parts, which at first bled profusely; it was found, however, that the base of this prodigious excrescence did not adhere to any part of the cranium;



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the integuments only were very much thickened all around it, and gave the appearance of tumefaction of the eyelids and forehead of the same side, in consequence of which the eye could only be half opened, as represented in the adjoining plate, two different models of which have enabled the artist to delineate the very features of the man.

REMARKS.

We are indebted for this extraordinary case to the politeness of Professor Cevallos, of Mexico. But such a kind of human excrescence is by no means unprecedented. It is a *lusus naturæ* which, however rare, has been many times observed in different parts of the body, and in all ages and sexes; although none, we can say, ever reached the enormous size which has been here represented. The physiological, or rather pathological causes are out of the question. Combinations of animal matter, organized with osseous and hard earthy masses, are not easier to account for, than horns, scaly and hairy formations in any being that breathes life. The phenomenon of engrafting, or the inoculating process in vegetation is equally surprizing and mysterious, just as much as the apples or nuts of colouring matter and of chemical ingredients, which are determined by living insects in the sumach or on the gall tree, *quercus cerris*. Nature, however, has drawn a line between vegetable and animal life; we cannot seize a link of contact between the systems of these two kingdoms, save the sensibility or moving power of the *mimosa pudica* and of the *hedysarum gyrans*. But, animal life in various classes seem frequently to exchange or borrow their characteristic formations: whether these are of a healthy or morbid nature it matters not; they are possible and under the specific laws of animal organization; the component parts of one species seem to be similar to those of another, and thus man must be humbled to the level of the brute creation.

Aldrovandus mentions, that a country boy of the age of 10 years, had a horn growing on the head, of the size of the index; and presented himself in the hospital of Bologna, to have it sawed off, in the year 1639.

Mr. De Thou and Bartholin have related in their respective works, that a Frenchman of the name of *Trouillon* exhibited himself in Paris in the year 1599, with a large horn on his forehead nearly resembling that of a ram.

Mons. Planque, in his "*Nouv. de la Republique des Lettres*," July 1686, page 790, has collected various narratives and monographies of human horns and claws, on the toes and fingers, in men, women, and children, which the limits of our pages would not suffice to enumerate.

The Journal of Trevoux, for 1707, page 1122, mentions the case of a girl, who had a horn on the right parietal bone and which was successfully extirpated, when it had attained the length of 5½ inches. Mons. Cabrole's eleventh anatomical observation, is that of a man called *Gay*, who bore on his forehead, a horn of 9 inches.

Mr. Scudder, proprietor of the museum of this city, testifies having had in his possession a horn 7 inches long, which had been taken from the head of an old lady of this city after death, had run up from the mastoid process, along the ear, and which was a second growth from the root of a former, which had previously been sawed off.* Dr. Chatard, of Baltimore, informs us that he has seen in that city, (where he has resided many years,) an old woman with a horn on her nose, more than an inch long, and nearly shaped like that of the rhinoceros. These documents, we think, will abundantly prove the many repeated instances of this singular kind of excrescence; it is however evident, that the threefold and enormous appendage of the Horned man of Mexico remains unparalleled.

Reflections *and* Experiments *on* Burns, *and their treatment. By* Mrs. Hannah Barnard, *of Hudson, in a letter to the Editors, dated February* 6, 1819.

I take the liberty of stating to thee, a discovery I accidentally made, about thirteen years ago; in which

* We have had it also stated and confirmed, that a living man had been seen in the museum of Philadelphia, about seven years ago, on whose breast plate bone (sternum) a horn of 4 inches had sprung, and remained without any inconveniency to him.

natural philosophy had little or no agency, (whatever degree of it I might flatter myself with having previously acquired) but by enabling me afterwards, to trace back to the cause, from the unexpected and surprising effect! I had burned the back of my thumb, near the hand, a space, perhaps, less than the size of a dollar; which was, nevertheless, sufficient to "tye down my sore attention," to its smarting for two or three hours, while busily engaged in domestic avocations. At length, merely because I knew not what to do with it, I applied a plaster, compounded of Burgundy pitch, bees-wax, and a little oil; which I had long kept in the house, as a convenient application to slight wounds; and which I shall take the liberty hereafter, more particularly to specify; I then went on with my work; and did not think of my burn again, till about five hours after; when the singular circumstance of such compleat relief, excited an immediate investigation of the cause; which appeared to me to be, first, The cause of the pain or smarting was, the component parts of the natural covering, the skin, was so far decomposed, or weakened, by the action of fire, as to render it incapable of bearing the application of oxygen to that part, without suffering a continued tendency to further dissolution; Secondly, That the external application of a complete non-conductor gave the part immediate rest; and afforded an opportunity for nature to repair the breach; and further, that by thus excluding the brisk action of oxygen, every tendency to inflammation from without was also fully excluded. In consequence of the conviction resulting from this train of reasoning, I have never since made any other application to a burn or scald; and by a continued series of invariably successful trials, I am so fully confirmed in the rationality of the theory, that I now feel it an incumbent duty I owe to suffering humanity, the infant part of it especially, to use every effort in my power to give it publicity. And though I flatter myself it will not be necessary to corroborate it by facts, in order to obtain Dr. Mitchill's assent to the justness of my theory; yet it may be, to some others, to whom thou mayest have the goodness to communicate it, from the same benevolent and compassionate motives; which, I trust, have induced me to make this candid

statement to thee. I shall therefore select three of the most prominent cases, out of the many to which I have been witness, or which have been substantiated to me by what I consider unquestionable authority.

The first, was that of a young woman in our family, eight or nine years ago, who seared, or scalded her arm, with a column of steam, which raised an entire blister on about one third of its surface; I immediately applied the plaster, and bound it up close; it immediately gave her complete relief from any further suffering. She let it remain four or five days without opening, and pursued her work as usual. In little more than a week it was compleatly healed, and no inflammation ever appeared in it. The second, was a child about a year old, in the summer of 1817, who was scalded with salt meat broth on the breast, and nearly the whole of the right arm. The father, whose name is Nicholas, came near six miles to me for directions, having previously heard something of my method of treating burns and scalds; this was the afternoon of Sunday, (first day of the week) and before the week was out, he informed my late lamented brother-in-law, Richard Robotham, that on the application of the plaster, the child went quickly to sleep, after suffering extremely previous to its application, for four or five hours; that it had a good night's rest; that the parts were nearly all healed; and the child had, through the whole process, been entirely easy and free from fever. The third, is a recent instance, in the case of a child of David Rogers, of this town, about four years old; who was scalded on the 24th ult.; and we judged that about one half the surface of the right leg was blistered, and in the bend of the ancle, where the stocking was wrinkled, and held the heat longer; the flesh was destroyed under the skin, apparently more than the skin's thickness. The leg was immediately wrapped in cotton, until the salve could be made, and a plaster applied; which could not take up less than three quarters of an hour; during which time the child's suffering was extreme. In less than ten minutes after the plaister was on, she was perfectly easy; and in less than ten more, was asleep; and has never since made the least complaint of smarting, pain, or

soreness. The next morning the blisters were carefully pierced through the plaster and skin with a large needle, when the water copiously flowed; after which the plaster was carefully drawn a little closer, and bandaged snug; but was not taken off till the third day; and then with great care not to break the skin, only with the large needle to let out the water which had again accumulated. The leg was then, without washing, again inclosed in the plaster, after adding a little more salve, where it appeared to be necessary. I attended the child every day merely for the sake of marking critically the progress of the sore; for, on any other account, it was unnecessary, she having, in her maternal grandmother, one of the best of nurses, in whose skill and attention I could place the most entire confidence. About the fifth day, there were plain indications of healing, by great part of the space ceasing to discharge. On the ninth, the new skin was evidently formed over the whole. The tenth, the plaster was taken off, and the leg only wrapped in a cloth wet in spirits, and the bandage applied, merely to shield the young skin from the air, and prevent the child taking cold, after having the limb so much wrapped up. This day, the eleventh from the accident, the leg appears wholly free from redness, or even tetters, so common on the healing of burns, which have suffered in their progress, by inflammation to any considerable degree; and it has never been swelled at all; nor has the child appeared to favour that foot in walking any more than the other. Permit me now to ask, if burns and scalds can be thus happily kept under command, as I verily believe they may, (though we ought not to relax in our care to prevent them) may not our dread of their consequences be materially lessened?

I now respectfully request thee to inform me on the following points; first, to what extent may a non-conductor be closely applied to the superficies of the human body, and yet leave sufficient space for the necessary oxygenation of the blood through that source, to preserve it in a healthy state? Also, whether, and in what degree, oxygen can be artificially increased through the lungs, with safety to that important organ?

With regard to apportioning the ingredients, I would just observe, that though the pitch and wax are, as thou knowest, equally non-conductors, yet the first is more adhesive, even when softened with oil, than is necessary; and the latter, not enough so; I therefore, generally allow about one fourth wax, then add lard, fresh butter, sweet oil, or any other oil, to reduce it to a suitable consistency, to prevent it from being too hard, and yet, not so soft as to melt with the warmth of the flesh, so as to leave the pores of the cloth open to admit the air. I prefer close, pliant cloth, to leather, as the latter is subject to grow hard if any moisture gets to it, whenever it dries. I trust thy goodness will pardon me, for thus "lighting a candle at noon-day." In the pleasing hope of a line from thee, when leisure from more important avocations permits, I am with sincere esteem, and high consideration, thy assured friend,

HANNAH BARNARD.

A remarkable Case of an Abscess *of the* Liver, *discharged through the Lungs; communicated by* Dr. Jo. Beckwith, *of Salisbury, N. Carolina, to* Dr. Calvin Jones, *of Raleigh, and by him to the Editors. Feb. 7th,* 1819.

—I have for some time kept a kind of record of my practice, and of other cases, from which I extract for your amusement the following, which I suppose to have been an abscess in the liver, having safely discharged itself, by adhesion, through the lungs. That suppurated fluids may be discharged from the liver, through the diaphragm and lungs, is, as Dr. Pascalis, of New-York, correctly remarks, a well-established point of pathological doctrine. In corroboration of this the Doctor has given, in the first vol. of Coxe's Medical Museum, a very interesting account of his own case—you doubtless recollect it. He likewise mentions the successful issue of Dr. John Redman's case, and quotes one from Lieutaud, of a monstrous tumour on the abdomen, which proved to

be an abscess of the liver, when it was discharged through the lungs, and almost emptied itself before the exhausted patient expired.

The following case did not fall under my care, but was related to me by the sufferer, a gentleman whose intelligence and general character deserve the fullest confidence. It is given nearly in his own language.

In the autumn of 1813, he was severely attacked by bilious fever, for the relief of which he was salivated; and after recovering a slight degree of health, an intermittent came on, from which he was not relieved till near the middle of the ensuing winter. By this time his spleen became considerably enlarged, accompanied with an almost continued pain or uneasiness in the right hypochondrium; his feet and legs were likewise swoln, and his countenance bloated. He had at times a voracious appetite, but after indulging it, had frequently violent spasms in the stomach, some of which he thinks have continued near a week before complete relief could be obtained. In the spring an attack of this kind was attended by a stricture of the ductus communis, his anguish was excruciating beyond any thing he had ever experienced; it terminated in jaundice, by which he was reduced to a very low state of debility. This continued near six weeks, and was finally relieved by soap, soda, and some bitter tonic preparation prescribed by a friend; without which aid, he thinks in a few days more he must have sunk under the tortures of his disease. When he had gained sufficient strength, he travelled on horseback over the mountains into the lime-water country, where his general health improved somewhat, and he was without spasms in the stomach; but the enlargement of the spleen, and uneasiness in the chest remained stationary, and on his return the tendency to spasms recurred.

During the fall and winter following, he had frequent visitations of the ague and fever; indeed, he could not bear the slightest exposure with impunity. In August 1815, he had another severe spell of bilious fever, and through the succeeding autumn and part of the winter, an intermittent kept possession. In the spring of 1816 he enveloped himself in flannel, and wore it till 1817: within this time his general health improved greatly.

In the fall of that year, a slight fever came on with bilious diarrhœa, and on taking a purgative pill, cholera morbus succeeded; he vomited a large quantity of blackish bile, and was by this process reduced to the last extremity. He believed the long chapter of his sufferings together with his existence would speedily close; but it happened otherwise: in a little time he began to recruit, regained flesh and strength rapidly, and the swelling of the spleen subsided. But the uneasiness in the right side still continued. During this time, however, he drank freely of soda water every day, and by the advice of a physician, used the white oxyd of bismuth with all the common water he drank, by which he thinks the tone of his stomach was greatly restored. Costiveness was obviated by chewing rhubarb root. After discontinuing the bismuth, he used prepared lime water. He remarked that during the low state of his health, he was subject to a most insupportable depression of spirits—his whole nervous system seemed unstrung, and every faculty of his mind unhinged. He now looks back with astonishment, upon the period when an unexpected shriek of a child, the tolling of a bell, or discharge of a gun, produced such violent agitation as to compel him to lie down. He was continually distressed by a disagreeable burning sensation in the hands and feet, and was often waked at night by a palpitation of the heart. In the spring of 1818, when he believed his health was quite restored, he became sensible of some difficulty of respiration; it seemed the effect of a fullness or tightness about the chest, and was more particularly distressing when lying down. It amounted sometimes to a state of suffocation, insomuch that he was obliged to rise suddenly from his bed for relief. About this time an event happened on his farm which caused him to run a short distance, and on returning to the house, a feeling of weakness and langour induced him to throw himself on a bed; when instantly he began to cough, and in a few minutes expectorated a surprising quantity of matter, somewhat resembling yellow bile—perhaps thinner and more transparent. He says it is impossible to speak with precision of the quantity discharged, as at first he was not prepared with a vessel to receive it. He coughed incessantly for

twenty or thirty minutes, during which the matter was flying in every direction; such was its consistence, and the ease with which it was expectorated. This continued, with intervals of 15 or 20 minutes, for more than two days. After the second day the discharge became inconsiderable, though he continued to have a slight cough and expectoration perhaps eight or ten days longer; and thinks, were he to hazard an opinion as to the whole quantity discharged, it would be deemed almost incredible. His impression at the time was, that an abscess had burst into the lungs, and yet he could hardly conceive how so large an imposthume could come from there, without some notice of its commencement, or warning of its progress. He was not sensible of ever having had any acute disease of the lungs. In a short time the uneasiness in the right side subsided, and has since been seldom felt. His health was never better than at present. He is at this time (Nov. 1818) about 33 years of age.

I leave you to judge whether I have mistaken the true nature of this case, and shall accordingly withhold any remarks upon it.

INTELLIGENCE.

Atmospheric Constitution, Diseases, and Bills of Mortality of New-York, April, 1819.

THE two last seasons have happily elapsed, without any morbid epidemic influence on the human constitution, in this, or in neighbouring districts, as far as our information and inquiries could extend. The state of the atmosphere, during the autumn and a part of the winter, has been remarkably dry. The S W., W. and N W. winds have constantly prevailed, much against the advantage of our foreign and coasting trade, the adventurous carriers of which have been incessantly repelled from our coast, and doomed to desponding detensions beyond the gulf-stream, and sometimes to shipwreck. Never had a tempestuous winter caused so many endless and distressing voyages from the European shores, against which there has been no avail, during a season which was hardly felt inclement on shore. As late as the middle of February, the majestic summit of the Catskill along the Hudson was not yet decorated with snow. The same range of winds blew away our share of fogs, mists, snowy clouds, and hanging storms, as soon as they were formed. At this period the temperature had so seldom reached the intensity of 10° below the freezing point, that the formation of 5 or 6 inch cakes of ice has entirely failed for the provision of the wants and luxuries of life, and by many, was procured from great distances on the river Hudson. The winter at last sat in with its bleak, freezing, and snowy weather; the more remarkable in its late appearance, that it ushered in from the south instead of the north. The southern states and districts had been benefited by this completion of the season, so much assorted to the pursuits of our farmers, long before we could thank providence for it. Were we permitted to offer an opinion on this inverted atmospheric progress of seasons, we would

again allege the continuation of south westerly winds, the coldness of which had determined a colder temperature in southern latitudes: these winds are known here to impart more electricity to the atmosphere; and as they parch the earth with dryness, in animate beings they provoke an inflammatory diathesis, or they increase nervous irritability by condensing vital energy. If our population has not, therefore, suffered from marsh miasmata, from moisture, nor from the usual variableness of temperature, it has been in a high degree exposed to an active inflammatory influence, to nervous diathesis, and excitability, to vesaniæ, to maniacal fevers, and to suicides. During the fall and winter we have seen aphthæ, pertussis, croup, and catarrhal fever, among children; among adults, catarrhs, rheumatisms, and pleurisies, with a few cases of cephalalgia; among the aged and labouring class, typhus mitior, more of sthenic character than usual, palsies, and remitting fevers.

A short retrospective view of the report on mortality in this populous city, during the preceding year will not appear irrelevant to the foregoing statement, to which we can add without fear of contradiction, that the general public health has been uninterrupted among all sexes and classes of society.

The above official document to the Honourable the Corporation, by their city inspector, exhibits an aggregate amount of 3265 deaths during the year 1818; in the same it is also specified that there has been an increase of 738 deaths above that of the preceding year, which in our last volume, page 303, we had stated to have been 2527.

With our unwillingness to entertain the least doubt of the exactness or authenticity of this catalogue, we confess that the same could not comport with our daily professional observations of health in general, nor with the alleged greater influx of emigrant families from Europe, or of thousands of individuals from all parts of the world; much less would we attribute a proportion of that considerable increase of mortality to the excessive heats of the summer, as it has been supposed, because their prevalence was always short, and as we observed, (p. 420,) owing to the dryness of the season,

the atmosphere was not at all miasmatic, nor productive of any epidemical affection.

In this dilemma, we have been induced to compare the details of the report which have immediately disclosed to us, quite a different result from what is herein stated, if not more consoling to the well wishers of public preservation of lives, health, and morality.

Deaths are stated in the report under the following diseases:

Consumption, . . .	591	Hydrocephalus, .	106
Typhus, ...	263	Still born, . .	159
Dysentery, ...	141	Tabes mesenterica,	111
Convulsions, . . .	201	Hooping cough, .	123
Hives, or Croup, . .	74	Total, . .	1769

This number is larger by 137 than the half of the aggregate of mortality.

Let us now consider that with the exception of the first article, consumption, all the others are appertaining to the infantile race, or in a great measure to children; there will then remain the prodigious number of 774 deaths of infants to be deducted from the grand total of mortality; furthermore, as many infants may have really died from other causes than those already specified, the report gives us, in a separate table, a total of mortality of young children from birth to two years of age, equal to 1111, which number being extended to that of 5 years, completes a proportion of 1309 young children; there will remain therefore but 1956 deaths during the year, from all classes of inhabitants, from 5 years and upwards, which proportion is certainly neither alarming nor prodigious, for a population, to be estimated much above that of our city records, which do not comprise the floating population on each side of New York, incessantly renewed by the foreign and coasting trade, the casualties of which being more numerous than on *terra firma*, must greatly contribute to fill up the bills of mortality of a probable total of 120,000 in the city and port of New-York.

While we thus clearly demonstrate that the average of deaths during the preceding year, proves a uniform and uninterrupted state of health among our fellow citi-

zens, let us be permitted to add a few remarks on the afflicting view we have presented of the ravaging evils which must exist and actively smother, as it were, much the best part of the new formed generation. Indeed, comparing the births to the deaths of a defined population, we are to infer that much the smaller portion of our succeeding generation is allowed to live and run the chances of manhood!

The following are the various causes to which we can conscientiously trace the desponding mortality of our children.

1. The intemperance of the low and labouring class of people, the baneful effects of which rapidly absorb the earnings, the time, and the thinking powers of wretched parents, who are soon rendered unable to procure food, or to impart bodily cares to their offspring.

2. The foolish vanity instilled into all ranks of society, by political *principles of equality*, which prompts them to immoderate and ruinous expences in style, furniture, and dress; the only characteristics by which they think to be able to fix their stand in society, and by which they ultimately remain devoted half of their time to want of necessaries, and to the loss of comfort and of honour.

3. Various prevailing opinions, as suggested by ignorance and avarice, to the lower and populous ranks of society; mothers protract the nursing task beyond a natural period, from selfish motives, to the detriment of their offspring; they are not used to, nor instructed of an intermediate sort of food for them, between that from their breast, and that of their tables; vanity introduces fashions to beautify infants, or notions to inure them against catching cold; nor are the fatal effects of variableness of temperature on the tender skin of children any way provided for, that we know, and which sweeps so many, from the gorgeous bankers or merchant house, down to the humblest dwellings, with cholera infantum, croup, and hydrocephalus.

4. To the existence and perpetual toleration of quackery and medical pretenders, who are too often countenanced by whomsoever they can present with consultation fees.

5. The defect of our medical statutes, and university

regulations, which have rendered it too easy both to create Doctors, and to obtain the highest medical graduation, without medical pupilage, without collegiate attendance, without even classical education.

6. For a last cause of mortality of infants, we will refer our readers to the above-mentioned number of *still born infants*, and to our remarks at the end of the 2d essay in this number.

ANNUAL BILL OF MORTALITY, *for the City and County of New-York, as reported by* Dr. G. CUMMING, *City Inspector to the Common Council, for the year* 1818.

1818.	*January.*	*February.*	*March.*	*April.*	*May.*	*June.*	*July.*	*August.*	*September.*	*October.*	*November.*	*December.*	*Total.*
AGES.													
OF WHOM WERE OF													
the age of 1 year and under	59	55	64	65	41	45	71	127	91	64	48	53	783
between 1 and 2	16	13	20	20	11	10	31	68	70	35	19	15	328
2 5	15	10	17	15	11	11	16	15	28	23	20	17	198
5 10	9	5	8	7	8	4	11	9	8	12	12	8	101
10 20	9	9	11	9	13	12	11	11	19	12	5	13	134
20 30	29	23	32	23	33	30	36	31	43	40	32	31	383
30 40	35	32	31	30	31	38	49	43	37	33	30	36	425
40 50	21	20	34	37	34	42	42	26	19	31	22	31	359
50 60	17	25	12	17	20	21	24	17	24	17	22	23	239
60 70	5	15	11	12	10	6	13	20	11	10	11	16	140
70 80	5	9	9	8	7	6	15	12	7	15	9	8	110
80 90	6	5	4	5	2	1	6	6	6	2	2	6	51
90 100	4	0	1	1	0	1	0	1	0	3	0	1	12
100 and upwards	0	0	0	1	0	0	0	0	0	0	0	1	2
TOTAL,	230	221	254	250	221	227	325	386	363	297	232	259	3265

MEDICAL ELECTRICITY.

We have some time past received several printed communications on this interesting subject, from respectable individuals, who appear to have devoted themselves professionally to electrical practice, for the cure of external and internal complaints; they have also offered us an imposing mass of evidence of the cases which they assert to have been successfully treated, or relieved, by their remedial experiments. We allude to Messrs. *Thomas Brown*, of Troy in this state, and *Jesse Everett*, now resident in this city; both *medical electricians*.

That electricity is incessantly operative in the human body, even without being excited by artificial means; and that by various processes on animal surface, it may become a powerful agent, reach the deepest recesses of vitality, and thereby allay or remove the causes of diseases, we ever did believe: but we have only regretted, to this day, that from the complexity of theories linked with the nature and even with the *composition* of this powerful element in the creation, on one hand, and from the difficulty of discrimination of morbid actions in each system of the human frame, on the other, the science of medicine could yet embody but a few doctrinal points respecting medical electricity; we, therefore, rejoice that the skill and labours of the above gentlemen may assist us in ascertaining by comparative results, both the efficacy of the etherial agent, and the whole range of diseases that may be controlled by it.

We have been told by the last-named gentleman, that early in 1816, Thomas Brown, of Troy, discovered a method of modifying the pungency of the electric shock, by checking the velocity of the fluid, which he effected by coating the jar with a substance different from that which is ordinarily used. He has also improved the amalgam. These, with sundry other improvements in the medical electrical apparatus, are secured to him by patent, with a hope of placing the practice in the hands of those who, by experience, should be able to designate the proper subjects, and the best mode of application.

Acting on a theory of his own, he has been more successful in combating disease, than any other electrician

of whom we have any knowledge; and instead of five, ten, fifteen, or more shocks at an operation, as some authors direct, he often passes from two to three hundred, with marked benefit. The shocks from the Leyden jar, as usually administered, strike the patient with terror, and violently twitch the joints; while insulation often produces languor, and sometimes syncope; but the modified shocks, when judiciously applied, excite an agreeable glow throughout the system, and are peculiarly useful in diseases arising from spasm, obstruction, or local debility."

This exposition is satisfactory as to the extraordinary modifications of the shocks, which are proportionate at will and pleasure, in the apparatus of our electricians, and converted into a more continued action. It was to obtain such an important advantage, that Mr. Lane, of Paris, had invented his Leyden phial's electrometer, without which, Messrs. Brown and Everett realize the same effect, and break the torrents of electricity from conductors to balls, &c. in any proportion wished for.

Let us be permitted, better to prove the importance of medical electricity, defined by fixed principles, to advert for a few moments to its history. The famous Abbé de Nollet, of France, was the first who proposed it, and, under him, several physicians of continental Europe contended for its efficacy, and practised it, until a more conspicuous character, of Geneva, Mr. Jalabert, in 1747, was so fortunate as to cure a complete paralysis by electricity; Sauvages, of Montpelier, then joined and supported him, with the help of Lindhult, of Sweden, who published an interesting work on the subject in the year 1753. Two years after, De Haen really cured, by it, a case of Chorea St. Viti.

In spite of so many encouraging attempts and favourable surmises, medical electricity died away, and sunk into oblivion, until the great Franklin shone in the world, as the restorer of electricity, and the parent of discoveries and of electrical phenomena which had, as yet, remained unknown.

"*Eripuit cœlo fulmen, sceptrumque tyrannis.*"

An anxious desire of theorising on electricity was then diffused over all Europe; the American philosopher

did not, however, surmise much benefit from medical electricity. He thought it would not be effectual, nor its agency be permanent in the system. His presence in Paris roused, nevertheless, a general spirit of investigation, which induced the Royal Medical Society to appoint a regular commission, directed to institute experimental inquiries in relation to diseases: the same was joined by members of the Academy of Sciences, under the principal manipulation of MAUDUYT, an enthusiastic medical electrician. At the same time, (1781,) Dr. Tib. Cavallo, a physician, in London, insisted that the success of remedial electricity much depended on its mild and gradual operation. Bertholon, of France, a Laureat writer, published, in 1780, his work "*Of the Electricity of the Human Body, in Health and Disease.*" This performance was ingenious, and it was compared to the extraordinary system of Brown, and conclusively was judged to be light and *inconsiderate.* Van Troostwyk, and Krogenroff, Dutch writers, and Laureates of Valence, in France, were heard of, and read, in 1788, as great authorities to the application of electricity in medicine. In fine, the Letters on Medical Electricity, by SIGAUD DE LA FOND, in 1802, and the promised work by the philosopher GIRARDIN, on the same, in 1815, form an authentic chain of pursuits and inquiries on this important subject. We find nothing better has resulted from so many practical philosophers than the experimental labours formerly instituted by the Royal Medical Society of Paris, under the direction of MAUDUYT, who has been said to be the most correct and impartial experimenter. He tried electricity on *palsy*, on *numbness*, on *rheumatism*, on *gout*, on *diffused milk*, on *deafness*, on *amaurosis*, and on *amenorrhea.* His report was received with a confidence as great as his known skill and integrity were entitled to; but, alas! it proved to be discouraging on the first 51 cases of palsy. In a proportionate number of other diseases, it offered remarkable instances of success, but which were almost overbalanced by a corresponding number of failures.

We would by no means pretend, by this statement, to invalidate the usefulness of medical electricity; we only think it our duty to remind our readers of the difficulties

of its application in the last mentioned experiments. It had been, in fact, erroneous to attempt controlling *hemiplegy* or *paraplegy* by electricity, while either form of palsy is an organic disease originating from congestion or lesion in the brain or spinal marrow.

However severe the wisdom, however scrupulous the authority, of medical doctrines might be, it is not required that the philosophy of electricity in the human body should be explained, nor is it necessary to determine what kind of electricity the *vitreous* or the *resinous*, (*Dufay's* theory,) the *positive* or *negative*, is to be excited for various sorts of complaints; nor whether external or superficial electricity is more or less calculated to disturb than to regulate the internally seated evolutions of animal electricity in its galvanic circle of muscles and nerves, &c. The science of medicine requires only a series of facts, correctly compared, at least, and from a sufficient number of instances, and well ascertained diseases, to compose or establish its practical rules.

Another difficulty presents itself to the electrical practitioner, from the proportionate excitement to be raised, in point of time and frequency, without disturbing the natural motions or organic laws. If to avoid this danger, the excitement should be restrained, might it not be kept up by auxiliary internal remedies? Again, the resolution of diseases, of fevers, obstructions, and congestions, cannot be expected during the *acme* or raging period of excitement. In these cases, electrical influence will have to be imparted at an instant, or view of the subject, that it may co-operate instead of counteracting a critical change or period of the febrile complaint. How difficult it must be to assort those only to medical practice, we leave it to our readers to determine! A similar case, we are glad to observe, was perfectly managed by Mr. Everett. It was a bilious remitting fever, ushered in with tumultuous and severe symptoms, which, by three prudently applied *electrisations*, he safely conducted through the short period of seven days to resolution and cure.

We hope that encouragement from the public, and from physicians themselves devested of intolerance, may

attend Mr. Everett's electrical practice, and that he may contribute to its better ascertained and extended definition as a therapeutic improvement. It is to such an imperious motive among the enlightened European philosophers of the last century, that we are indebted for the admirable discoveries of Volta, Galvani, Valli, and Aldini, which have unquestionably so much enlarged the dominion of chemistry and medicine. We hold in high estimation the perfect skill and acquaintance which, in his pursuit, Mr. Everett has exhibited by the various improvements in his machinery, portable or stationary, and much more by his prudent discrimination of the diseases, which, in our opinion, he is justifiable in controlling by electricity.

Transparency of the Pericardium.

The attending physicians of the New York Dispensary, Doctors Dyckman, Cheesman, Cockroft, and Townsend, accompanied by Doctors Aydelott and Ducachet, had an opportunity, during the last month, of verifying the curious discovery, by Professor Richerand, of the transparency of the pericardium, which they find to be true in the dead as well as the living subject. The case occurred in the examination of a mulatto child of two years of age, twelve hours after death. The child had died of the febrile remittent of infants; there were two or three ounces of colourless water in the pericardium, a considerable quantity in the brain, and the body was yet warm.

REMARKS.

The transparency observed in the above subject has no doubt existed as long as the warmth of the body.

The reporters of the operation by Richerand, for cancer, as inserted in our preceding volume, page 411, have related an historical anecdote which proves that the fact of the transparency of the pericardium during life, had been noticed by the celebrated Harvey, who once exhibited to Charles II. king of England, the rare sight of the motions of the heart, in a man whose breast plate

and skin were destroyed by caries. The king, wondering, asked Harvey whether his *own* heart, and that of *Cromwell*, the murderer of his father, and that of the *traitor and sycophant Dryden*, were the same as the heart of the unfortunate man? The Doctor, of course, answered affirmatively, and the monarch presented a purse to the sufferer, to reward him, he said, "for the great lesson he had received from this exhibition!"

We are informed that Mons. *Michellau*, the person so successfully operated by Richerand, having returned to his place of residence, at Nemours, died six days after his arrival.

Anatomical and Physiological Discovery.

We have received the memoir of our friend and correspondent, Hippolyte Cloquet, D. M. P. one of the editors of the New Journal of Medicine, of Paris, which demonstrates that there is an organ in the anterior palatine canal of the human subject, connecting the olfactory and gustatory sympathies, or sensations of taste and smell. In inferior animals, and ruminantia, the existence of the same is particularly necessary to protect their existence, and is more voluminous than in man, who by it enjoys of an excitability of the two senses, taste and smell, by applying certain substances either to the nasal or to the palatine membranes. As soon as the communication of Dr. Hipp. Cloquet has been presented to our Medical Society, for which it is intended, we will insert a description of it for our readers.

Galvanic Phenomenon.

On the 4th of November last, various galvanic experiments were made on the body of the murderer Clydsdale, by Dr. Ure, with a voltaic battery of 270 pair of four inch plates. The results were truly appalling. On moving the rod from the hip to the heel, the knee being

previously bent, the leg was thrown out with such violence as nearly to overturn one of the assistants, who in vain attempted to prevent its extension! In the second experiment the rod was applied to the phrenic nerve in the neck, when laborious breathing instantly commenced, the chest heaved and fell; the belly was protruded and collapsed, with the relaxing and retiring diaphragm; and it is thought, that but from the complete evacuation of the blood, pulsation might have occurred!! In the third experiment, the supraorbital nerve was touched, when every muscle in the murderer's face "was thrown into fearful action." The scene was hideous—several of the spectators left the room, and one gentleman actually fainted, from terror or sickness!! In the fourth experiment the transmitting of the electrical power from the spinal marrow to the ulnar nerve, at the elbow, the fingers were instantly put in motion, and the agitation of the arm was so great that the corpse seemed to point at the different spectators, some of whom thought it had come to life! Dr. Ure appears to be of opinion, that had not incisions been made in the blood vessels of the neck, and the spinal marrow been lacerated, the criminal might have been restored to life.

American Pharmacopœia.

In our last volume, page 433, we gave the project for the formation of a national pharmacopœia, which has met the unanimous approbation of the medical institutions of our country. The district convention for the northern states will be held in Boston, and that for the middle states in Philadelphia, on the first day of June, 1819. Those for the southern and the western states, will be held in the autumn. The general convention will assemble in Washington on the first day of January, 1820, when the work will be completed, the copy-right sold, and the American Pharmacopœia published.

Royal and Pontifical University of Lima.

With the desire of establishing a useful intercourse with our learned professional brethren of the above distant institution of South America, the editors take this method of acknowledging to Don J. Emanuel Davalos, president of the same, and professor of materia medica, the receipt of the following literary presents:

1st. A Latin inaugural dissertation for the degree of Bachelor of Medicine, on the *Chemical Elements of Plants*, by Don Joseph Gordillo. 1811.

2d. *On the Possible Cure of Phthisis Pulmonalis, Idiopathic and Confirmed*, for the same degree, by Don Francis Cendagorta.

3d. *On an Epidemic Convulsive Catarrh*, among children, during the elapsed autumn, (the period of our spring,) which was successfully treated by bleeding and repeated cathartics, for the same degree, by Don Ignatius Morales.

We have derived much edification from these medical exercises, and we have admired the elegance of the Latin performances, which have appeared to us equal to any similar productions of the old seminaries of Europe. At the same time we regret that such unequivocal tests of classical preparations to medical studies, as Latin inaugural dissertations, should not be encouraged or required in our North American Universities. If academic honours can be obtained by individuals of common school instruction, they will neither do good to the candidate, nor give dignity to the profession, and much less to the chair. Our state laws have sufficiently provided for the promotion to medical license of those who can, by natural and private studies, render themselves worthy of public confidence; the only titles, therefore, recognised in the republic, those of academic graduation, should not be obtainable *without classical instruction*, but, on the contrary, always be noble vouchers of liberal *education* and *acquirements*.

New-York Medical Licence and Graduation.

By an act of the state legislature, passed in 1818, it is provided that, after the 1st day of May, 1821, no student of medicine shall be admitted to an examination as a candidate for the practice of physic and surgery, unless he has been four years in study and pupilage with a regular physician, the certificate of which shall have been, from time to time, deposited with the President of the Medical Society of the county where he resides; but should any student have attended one or more complete courses of lecture in any of the colleges of the state, the period of study and pupilage shall be reduced to three years. The license is to be granted, agreeably to former statute, by the medical societies of the counties, or by the censors of the state medical society, after due and satisfactory examination of the candidates; but until a period of time equal to the probation required is elapsed, the former requisition of only two years pupilage remains *legally* sufficient. The graduation of our medical colleges differs not, we humbly believe, from the *license* of practice alluded to in the above and former statutes but by being connected with academic honour and title, and consequently the same law should have naturally been applied to all collegiate medical students. It appears, however, that our seminaries of instruction, being under the immediate direction and jurisdiction of the regents of the university, the late and former requisitions of probatory pupilage have equally been set aside in the regulations of our College of Physicians and Surgeons; it has been, in consequence, a subject of representation by several medical societies against conferring the high honours in medicine on those who have not completed, at least, an equal period of study and private education as is required for medical *licenses*. We are happy to observe that the wisdom of the legislature has effectually provided against any misconstruction of the medical statute, and guarded against any loose or inefficient system of public instruction which might, at a future time, become disreputable and derogatory to the profession.

"And be it further enacted, That no college of physicians and surgeons, in this state, shall confer a diploma for the degree of Doctor of Medicine, upon any student, until such student shall have fully complied with the requisitions contained in the first section of the act entitled "an act to incorporate medical societies, for the purpose of regulating the practice of physic and surgery in this state," passed twentieth April, 1818; and also, in addition thereto, have attended one complete course of lectures delivered by each of the professors of such college."

The former statute, which requires ~~two~~ 3 years pupilage, is in force until after the year 1821, and no student can be admitted to the *degree of Doctor of Medicine* without satisfactory certificates thereof, besides one complete course of lectures, &c.

New-York State Medical Society.

The anniversary meeting of this institution, pursuant to statute, was opened on the second of February, in the assembly chamber, by the President, John Stearns, M. D. who delivered an address on geology. The scientific theories of this branch of natural philosophy, its great explorations throughout the world, principally in the United States, its strong coincidence with the Mosaic cosmogony, its extensive applications in ascertaining the presence of precious metals and strata, its agency on atmospheric constitution, and therefore its connection with medicine; all these interesting points were eloquently explained to a numerous and respectable audience. The orator terminated his address with a retrospective view of the improvements of medicine and surgery, the profession of which is liberally protected by our enlightened legislature, and which, in the progress of civilization, is not only to be depended upon for the preservation of health and life, but as essentially contributing to public happiness and morality.

The general New-York State Society is composed of *permanent* and *honorary* members, and of the *delegates*

from county medical societies and colleges. It devises, under the authority of the statute, such general regulations as are, from time to time, judged expedient or necessary. It is also a central point of union and of intercourse between the members of the faculty from distant parts, who can thus communicate to each other useful knowledge and daily practical improvements in medicine and surgery.

The following were the principal officers elected for the present year:

JOHN STEARNS, of Albany, *President.*
WESTEL WILLOUGHBY, of Herkimer, *Vice President.*
CHARLES D. TOWNSEND, of Albany, *Secretary.*
JOHN DOWNS, of Rensselaer, *Treasurer.*

Censors.

SAMUEL L. MITCHILL, FELIX PASCALIS, BENJAMIN DEWITT,	Southern District.
T. ROMEYN BECK, WILLIAM BAY, PETER WENDELL,	Middle District.
AMASA TROWBRIDGE, ALLEN MANN, ABRAHAM ALLEN,	Eastern District.
LAURENS HULL, JOHN MILLER, JOSHUA LEE,	Western District.
DAVID HOSACK, AMASA TROWBRIDGE, T. ROMEYN BECK, JOHN MILLER, JOSHUA LEE, SAMUEL L. MITCHILL, WESTEL WILLOUGHBY,	*Committee of Correspondence.*

N. B. The State Medical Censors, in their respective districts, have it in their power, after examination, to grant licenses for practice, and to redress any grievance represented by candidates who might have been partially treated in their respective county societies.

New-York County Medical Society.

At the anniversary meeting of this institution for the present year, which will take place the first Monday of July, an address will be delivered by John Watts, M. D. one of the censors, and appointed orator for the day.

Dutchess County Medical Society.

At an anniversary meeting of the Dutchess Medical Society, held the 10th November, 1818, the following gentlemen were elected officers for the ensuing year.

HUNTING SHERRILL, *President.*
HENRY D. SLEIGHT, *Vice-President.*
ROBERT NOXON, *Treasurer.*
ELIAS TRIVETT, *Secretary.*
JOHN COOPER,
JAMES DOWNS,
JOHN BARNES,
P. D. SCHENCK,
WM. THOMAS, } *Censors.*

Doctors P. D. Schenck, Eddy, Peter D. Fowler, and William S. Williams, were elected members of the society.

Resolved, That the members of this society be requested to wear crape on the left arm for twenty days, in memory of the late Dr. John Thomas, deceased.

Resolved, That all physicians and surgeons licensed since the year 1813, and all physicians and surgeons resident in this county, who may have become residents since the year 1813, be requested to file their licenses or diplomas in the clerk's office, agreeable to a law of the legislature of this state, passed the last session.

ELIAS TRIVETT, Secretary.

Rhode Island State Medical Society.

The Rhode Island Medical Society held their annual meeting in Providence, on the 1st September, 1818, when the following gentlemen were elected officers:

PARDON BOWEN, M. D. *President.*
CALEB FISKE, 1st *Vice President.*
DAVID KING, 2d ditto.
WILLIAM TURNER, *Recording Secretary.*
J. W. RICHMOND, *Corresponding Secretary.*
THOMAS M. BARROWS. *Treasurer.*
H. G. BOWEN, *Librarian and Cabinet Keeper.*

Solomon Drown, M. D. Levi Wheaton, M. D. Samuel Hudson, and John Mackie, M. D. Censors for the Northern District.

Enoch Hazard, Edmund T. Waring, Charles Eldridge, and William G. Shaw, Censors for the Southern District.

Dr. Ezekiel Fowler, of Smithfield; George H. Tillinghast, M. D. and Goodwin Allenton, M. D. of Providence, were elected Fellows. Dr. Barrows read before the Society an ingenious Discourse on Hydrophobia. Dr. Aaron C. Willey was appointed 1st, and Dr. Brown, 2d, Orator for the next anniversary.

The Society appointed Solomon Drown, M. D. Professor of Botany and Materia Medica in Brown University, a delegate to meet the delegates in convention from the Northern District in June next, preparatory to a general convention of delegates from the district conventions, to be held in the City of Washington, on the first day of January, 1820, for the important purpose of forming an *American Pharmacopœia.*

OBITUARY.

Died, in Philadelphia, 12th November, 1818, JOHN SYNG DORSEY, late Professor of Anatomy in the University of Pennsylvania. He was born in 1783.

At St. Thomas, where he had retired during winter, for the benefit of his health, JOHN C. OSBORN, M. D. one of the late physicians of the New-York Hospital, &c.